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The Tidewater confronts the storm : antisubmarine warfare off the capes of Virginia during the first six months of 1942

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ABSTRACT

Thesis Title: The Tidewater Confronts the Storm: Antisubmarine Warfare off the Capes of Virginia during the First Six Months of 1942
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At the outbreak of the Second World War, Germany launched a devastating submarine campaign against the merchant marine traffic along the eastern seaboard of America. The antisubmarine defenses mounted by the United States were insufficient in the first months of 1942. This thesis examines how the United States Navy, in cooperation with the Army and the Coast Guard, began antisubmarine operations to protect the Chesapeake Bay and the surrounding area from the menace of Germany's U-boats during the first year of America's participation in World War II.

This thesis complements the other histories of antisubmarine warfare during World War II, seeking to cover new ground by examining the defenses of Chesapeake Bay region in the antisubmarine campaign. Given the circumstances the nation faced at the start of the conflict, it was impossible to prevent the initial slaughter suffered by the merchant vessels off the Virginia shores.

The thesis relies primarily upon the records held at the Naval Historical Center in Washington, D.C. Other sources include museums and archives throughout the Tidewater area, official histories, local historians, chronicles kept in private collections, and newspaper accounts.

Approval Page

I certify that I have read this thesis and find that, in scope and quality, it satisfies the requirements for the degree of Master of Arts at the University of Richmond.

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THE TIDEWATER CONFRONTS THE STORM: ANTISUBMARINE WARFARE OFF THE CAPES OF VIRGINIA DURING THE FIRST SIX MONTHS OF 1942

By

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CHAPTER I

INTRODUCTION

In the early years of the Second World War, America was the source of much-needed war material for Great Britain in its fight against Nazi Germany. Adolf Hitler knew that if the lifeline to Britain could be severed, that country would eventually succumb to his iron will. Once England fell, the rest of Europe would be his for the taking. Realizing this, he unleashed a deadly U-boat attack against the merchant traffic the sustained that island country. Following the attack on Pearl Harbor in December 1941, Hitler declared war on the United States. He ordered Rear Admiral Karl Doenitz, the head of the U-boat arm, to attack both the transatlantic convoys and the source of their supplies, the eastern coast of the United States. It was this order, aimed at bringing to a standstill the flow of material from America, that brought German submarines to the capes of Virginia, where they sank ship after ship during the first year of America's participation in the war.

The capes of Virginia were an important target for the Germans, second only to the waters off New York. The shipping trade in the area was the reason the U-boats came to the shores of Virginia. But the area also had a potential for defense. It was home to the Norfolk Naval Station, the Naval Shipyard, and

the several Army forts that protected the mouth of the Chesapeake Bay.

Virginia was at the center of the Fifth Naval District, which included Maryland (except Anne Arundel, Prince Georges, Montgomery, St. Marys, and Charles counties); West Virginia; Virginia (except the counties of Arlington, Fairfax, Stafford, King George, Prince William, and Westmoreland); and much of North Carolina (the counties of Currituck, Camden, Pasquotank, Gates, Perquimans, Chowan, Dare, Tyrrell, Washington, Hyde, Beaufort, Pamlico, Craven, Jones, Carteret, and Onslow), plus the Diamond Shoal Lightship.[1] It maintained a jurisdiction over coastal waters fifteen miles out to sea. The Norfolk Naval Station served as the headquarters for the Fifth Naval District.

The German submarines brought death and destruction to the waters of the Fifth Naval District. It was in this district that 85 vessels were attacked; of these, 67 were sunk, and 14 damaged. Only 4 escaped unharmed. Of all the vessels lost off the Virginia capes, more than 90 percent were sunk within the first six months in which this country was at war.[2] It was clear even in the Tidewater region that the U-boats were threatening the overall war effort.

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[1]Arthur A. Ageton, The Naval Officer's Guide (New York: McGraw-Hill, 1943), 65.

[2]Fifth Naval District, "War Diary of Operational Intelligence," n.d. Box Number 390, 1-6, Operational Archives, Naval Historical Center, Washington, D.C.

When the Second World War broke out, many residents still remembered the carnage wrought by a handful of German U-boats off the U.S. coast in the previous war. They did not anticipate that the amount of tonnage sent to the bottom in the area during the First World War would be minuscule in comparison to that in the Second.

Nor did they know the magnitude of the disaster as it unfolded. "Little was published at the time," wrote David Stick in 1952, "In fact . . . material on World War II ship sinkings has been harder to dig out--and less detail has been unavailable--than for any other period since the War Of 1812."[3] Only recently, however, has information come to light on the slaughter that took place along our coasts in World War II.

One cannot explain the slaughter without first discussing the weapon that caused it. The German U-boat that brought such carnage was diminutive in comparison to today's submarines. However, it was an efficient and destructive weapon, well-suited to its task. The Type IX submarine, which was the main predator on the eastern seaboard in the first six months of 1942, had a surface displacement of 1,051 tons, submerged, 1,178 tons. It was 76.5 meters in length, 6.76 meters across the beam, and 4.7 meters in surfaced keel depth. It had a pressure hull 20.5 millimeters thick, which allowed it to dive to depths of over 300 meters and survive everything but direct hits. On average, it

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[3] David Stick, Graveyard of the Atlantic: Shipwrecks off the North Carolina Coast (Chapel Hill: University of North Carolina Press, 1952), 228.

had a complement of forty-eight men, including four officers. It was the skill of the crew that determined how fast the boat could dive. In some cases, diving a few seconds faster would mean the difference between life and death.[4]

The IX Class had two monstrous diesel engines that allowed for a maximum surface speed of over eighteen knots. Two electric motors propelled the vessel underwater at a maximum speed of over seven knots. The range of the Type IX was either 12,000 nautical miles at an average speed of ten knots or 15,000 nautical miles at a speed of eight knots.[5] Submerged, its range was reduced dramatically, to only sixty-three miles at four knots.

The weaponry that this U-boat carried was impressive. The standard IX carried twenty-two 21-inch torpedoes, fired from six tubes, four submerged bow tubes and two submerged stern tubes. Twelve of the torpedoes were kept within the pressure hull, and ten were stored in containers just below the deck. It carried both electric torpedoes, capable of thirty knots, and compressed air driven torpedoes, capable of forty-four knots. The electric torpedo was the most sought after by U-boat captains. When it was fired it did not leave a wake as did the compressed air torpedoes. The Type IX carried an 10.5 cm deck gun, which was occasionally used against ships to save torpedoes. It also carried a 3.7 cm anti-aircraft cannon on the deck and a 2.0 cm

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[4]Eberhard Rossler, The U-boat: The Evolution and Technical History of German Submarines, trans. Harold Erenberg (Annapolis: Naval Institute Press, 1981), 105.

[5]Ibid.

machine gun in the conning tower for protection against sub-hunting aircraft.[6]

This thesis explains how Americans overcame and defeated the U-boats off the shores of Virginia during the first part of 1942. It focuses on the defenses of the Chesapeake Bay, a crucial waterway for the United States and the war effort. It describes the magnitude of the threat and how the United States Navy, cooperating with the Army and Coast Guard, brought security to the region. In less than a year, this cooperation brought the antisubmarine defenses to such a high degree of efficiency that they virtually ended U-boat operations in the waters of the Fifth Naval District. This study compliments the many works that already exist on the U-boat offensive that occurred off America's east coast during World War II. Only a few include a description of the defenses that were built off the Virginia capes. Most have sought to portray the big picture of the conflict, and do not provide much detail on the part played by Virginia. Generally, authors have examined the entire campaign of 1942 and defenses along the eastern seaboard with varying degrees of emphasis. Michael Gannon, author of Operation Drumbeat, gave an overview of the German offensive while taking the experiences of one particular U-boat captain, Reinhard Hardegen, in the U-123, as the central narrative.[7] Gannon, in company with Samuel Eliot

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[6]Erminio Bagnasco, Submarines of World War II (Annapolis: United States Naval Institute, 1973), 70.

[7]Michael Gannon. Operation Drumbeat (New York: Harper & Row Publishers, 1990), 275.

Morison and Al Chewning, tend to be very critical of American antisubmarine operations, but their assertions need to be tempered by an awareness that antisubmarine defenses cannot be erected overnight. Good defenses take time to build. By recounting how the defenses off the Hampton roads were initiated, this study illustrates the size of this task. Military commands had to be established, personnel had to be selected and trained, and the scant resources that were available had to be pooled and then sent to areas where they would do the most good. These tasks took months.

Over fifty years have passed since the Battle of the Atlantic began, and it is fitting that now the story finally be told of how Tidewater forces participated in defeating the U-boats. Many Virginia Beach residents still remember the oil washing up on the shores as well as other bits of debris from the ships that had fallen victim to the U-boats. They knew about the sinkings, but few knew how widespread they were. Only recently have the facts been revealed about the carnage that took place in the first months of 1942. This thesis will fill in the gaps of other authors, who have not given a detailed account of the defensive efforts undertaken by local forces, by giving an analysis of the defenses. It was a massive undertaking that was occurring all along the eastern coast of America. Thousands of men and women took part. It dictated that the armed forces overcome their rivalries, and it required careful planning. In the end, however, the task of defeating the U-boats was

accomplished. The sacrifices made were enormous. It is for those people who made the ultimate sacrifice in the battle against the U-boats that this story is now told.

CHAPTER II

THE STORM ARRIVES

On 7 December 1941, the United States was propelled into World War II. Hysteria gripped the Hampton Roads region when word of the Japanese attack arrived. All military bases went on the highest stage of alert, and ships were hastily prepared for sea. Citizens and military leaders feared that the Axis powers, most likely Germany, would launch an attack against the military bases in the region, especially against the Naval Operations Base in Norfolk.[1] No attack occurred, however, at least not against the military facilities. It was the merchant ships, beginning in January 1942, operating in American waters, that were eventually attacked. The weapon of choice for the Germans: the U-boat. The Germans despatched their submarines to the Atlantic coast and to the waters of the District for four reasons. According to an official analysis written after the offensive:

> First, every shipload of oil or supplies sunk would either exact a toll on American civilian economy and war production, or upon the flow of supplies to England. Second, those ships used by the Navy to protect that northern route to England would have to be diverted in part or American coastal traffic would be eliminated. Third, every ship that went to the bottom off the Atlantic coast would constitute one less available bottom for any offensive armada later to be gathered by an American force bent on aiding the British. A fourth reason for the Axis to send U-boats

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[1]Fifth Naval District, "War Record of the Fifth Naval District, 1942," 1943, Guide no. 129, p. 1. Operational Archives, Naval Historical Center, Washington, D.C.

> was to appear after a few weeks of operation in American waters, namely, the lack of risk in a happy hunting ground where almost random discharge of a torpedo found a target and rarely brought retribution.[2]

The east coast was a "happy hunting ground" because the U.S. Navy was using most of its escort vessels on the northern route to England. The result was many sinkings in the waters of the Fifth Naval District.

In fact, the American defenses were completely unprepared for German U-boats when Hitler declared war on the United States. A plan to protect the merchant traffic sailing along the east coast did exist. The U.S. Navy had organized the eastern seaboard into an administrative unit entitled the Eastern Sea Frontier. The frontier was to be protected by Navy's Fleet and the Local Defense Forces. Since the fleet, however, became occupied with transatlantic convoys and was shuffled around to sea areas considered to have more urgent problems, the Local Defense Force assumed the burden of protecting the coast and the ships that travelled its expanse.[3]

In December 1941, the Fifth Naval District had only four ships capable of operating against enemy U-boats. Eventually, it acquired more vessels for antisubmarine defense, but the process was painstakingly slow. Small wonder, then, that the U-boat commanders referred to the early months of 1942 as their "second

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[2]Ibid., 2.

[3]Commandant, Fifth Naval District, "History of the Fifth Naval District, 1939-1945," vol. 2, 1946, Guide no. 112, pp. 491-92, Navy Library, Naval Historical Center, Washington, D.C.

happy time." (The first of course, was in the waters around Britain in 1941.) The period was also described as the "merry massacre" and the "American shooting season." All the names were appropriate. German U-boats operated with little fear of retaliation from either American aircraft or escort vessels. Air patrols were limited. In the first months of 1942, only two flights daily from Langley Field, Virginia, were flown, both of one plane each. These aircraft posed little threat to the enemy, who was comparing the campaign in American waters to shooting ducks on a pond.[4]

The U.S. Navy's failure to organize convoys made merchant vessels vulnerable. The U-boat captains discovered right away that merchant vessels were still sailing independently, as though war had not been declared. The captains of merchantmen stopped their vessels close to torpedoed ships and asked for information about attacks over the loud hailer, making themselves vulnerable to attack. Ships that were hit but remained capable of steerage often did not bother to initiate a zigzag course or vary their speed so as to prevent a U-boat from delivering the coup de grace. Furthermore, the merchantmen had no idea of communications security; they chattered about everything under the sun over the 600-meter wave band--and if that was not enough, the coastal defense stations sent out over the airwaves a regular program of information, giving details of rescue work in progress, of where and when aircraft would be patrolling and the

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[4]Ibid., 677-78.

schedules of antisubmarine vessels.[5] Consequently, the Germans continued their reign of destruction along the eastern coast of the United States for months. Nearly every torpedo fired by a German U-boat claimed a victim, and when the torpedoes were expended the deck gun was almost equally effective. Towns that bordered the waters of the Fifth Naval District, where for a while there was no blackout order, heard nightly the sounds of battle along the coastline, witnessed the sinking ships offshore, and finally had to recover the bloated bodies of Allied merchant seamen that washed ashore.[6]

Fewer ships might have been sunk if the military authorities had ordered the local communities to dim their waterfront lights at the outbreak of the submarine offensive in January 1942. Unfortunately, three long and bloody months would pass before the lights were extinguished. When this obvious defense measure was first proposed, complaints were heard all along the east coast, even in Virginia Beach, where merchants feared that the tourist season would be ruined without nighttime illumination.[7] The neon lighting of large waterfront communities created a glowing backdrop that silhouetted shipping traffic near the shoreline. Ships were sunk and seamen drowned in order that the citizens of

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[5]Wolfgang Frank, The Sea Wolves (New York: Holt, Rinehart and Winston, 1955), 111-12.

[6]Winston Churchill, The Second World War, vol. 4, The Hinge of Fate (Boston: Houghton Mifflin Company, 1950), 117.

[7]Samuel Eliot Morison, The Two Ocean War: A Short History of the United States Navy in the Second World War (Boston: Little, Brown and Company, 1963), 109.

these communities might enjoy pleasure as usual. It was not until 18 April 1942 that the Commander of the Eastern Sea Frontier, Admiral Andrews, ordered all waterfront lights and sky signs doused, three months after the submarine offensive had started.[8]

When Germany declared war on the United States on 11 December 1941, conditions could hardly have been more propitious for Admiral Doenitz, the commander of Germany's underwater fleet. The Pearl Harbor attack forced the United States Navy to divert warships to the west coast. The forces at the Navy's disposal for the Atlantic defense were thus reduced at the very moment that America lost the protection of its neutrality. After two years of near-immunity from German attack, the United States Navy was unprepared for the new mission of coastal defense. The German submarine service, by contrast, was thoroughly battle-hardened by twenty-seven months of war.[9] Furthermore, the sheer abundance of shipping along the east coast offered the well-practiced Germans a chance to attack. On 9 December 1941, Doenitz wrote in his War Diary the following entry, "The attempt must be made to exploit these advantages, which will disappear in the foreseeable future, and to strike a blow at the American coast with a drumbeat."[10]

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[8]Ibid.

[9]Dan van der Vat, The Atlantic Campaign (New York: Harper & Row, 1988), 236.

[10]Ibid.

"Drumbeat" is the translation of the codeword chosen for the German submarine offensive in the waters off the eastern coast of the United States: Operation *Paukenschlag*. Doenitz would launch the operation with not one drumbeat, but many.

When Doenitz made the proposal to greet America's entry into World War II with literally "a beat on a kettledrum," he planned the immediate deployment of twelve Type IX long-range U-boats to operate in the coastal areas from New York down to the Caribbean. He sent the smaller shorter-range Type VIIC U-boats to operate off of Newfoundland and Nova Scotia, which were up to 1,000 miles closer to their bases in France. But on the following day, 10 December, the German Naval High Command allowed Doenitz only six Type IXs to strike the first blow in Operation *Paukenschlag*. Of these, five were ready to put to sea from the Biscay ports between 16 and 25 December.[11] Considering the number of U-boats that Doenitz could have employed, it was an unfortunate situation for the Germans.

U-boats had been to American waters in World War I. Nevertheless, the 1918 offensive had been a shock, and in 1942 the extent to which it had been forgotten and its lessons ignored was a surprise. The new offensive proved disastrous for the Allies. Reinhard Hardegen, commander of U-123, began the campaign on 12 January 1942, when he torpedoed the British freighter SS Cyclops, 9,076 tons, some three hundred miles east

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[11]Admiral Karl Doenitz, Memoirs: Ten Years and Twenty Days (New York: Leisure Books, 1959), 198.

of Cape Cod, Massachusetts. The first blows of the arriving submarines fell in mid-January in a tentative exploratory fashion at various points along the coast, first in the north and then in the south. They exacted many lives and ships. Similarly exploratory counter-measures by the thinly spread and inexperienced forces of the United States Navy had little chance against the battle-hardened Germans.

At the time, America's resources were stretched to the limit. The transatlantic convoys to Britain demanded a variety of ships, and following Pearl Harbor a severe crisis ensued in the Pacific as the United States Navy attempted to stem the Japanese tide. Consequently, in the first month of 1942, the German U-boats operated with little fear of retribution. They sent ten ships to the bottom of the ocean in the waters of the Fifth Naval District. The coastline from Norfolk south to Wilmington, North Carolina, became the graveyard for numerous vessels. The enemy lay in wait off the Diamond Shoal's buoy and simply picked off the freighters and tankers as they rounded it.[12]

The attacks by the five U-boats at the start of Operation *Paukenschlag* proved very successful. Doenitz reported the statistics of the operation in his War Diary:

> U-123 (Lieutenant Commander Hardegen) reported that eight ships (53,360 tons) had been sunk, among them three tankers; U-66 (Lieutenant Commander Topp) sank five ships (50,000 tons), of which one was a large freighter laden with iron ore and two were tankers; U-

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[12]Fifth Naval District, "War Record," 3.

> 130 (Lieutenant Commander Kals) got three laden tankers and one freighter with a total tonnage of 30,748 tons, and the toll taken by the remaining two boats was similarly high.[13]

The War Record of the Fifth Naval District analyzed the attacks by the German U-boats. It reported, "Typically the enemies exploratory moves when meeting with success became determined and aggressive."[14] The "Record" went on to say that "The German U-boats attacked almost with glee when they found that they could fire torpedoes at one ship lighted by the flaming remains of another."[15] The U-boats discovered that Cape Hatteras was a key transit point for the merchant traffic, and the U-boats likewise found that ships below Hatteras could seek no haven even when they wished to lie-to at night. Night fell on many merchant ships before they could reach the next protected anchorage. On bright nights, when ships could be brought into the path of the moon, the U-boats seldom missed their targets.

The first casualty in the Fifth Naval District did not occur until six days after Hardegen had claimed the SS Cyclops. It was in the early hours of 18 January, just off the coast of North Carolina. Two torpedoes from the U-66 split the Standard Oil tanker Allan Jackson in half. The ship foundered within ten minutes. Twenty-two sailors lost their lives. By the end of the

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[13]Doenitz, Memoirs, 203.

[14]Fifth Naval District, "War Record," 2.

[15]Ibid.

month eight more ships had met similar fates off the Virginia-North Carolina coastline.[16]

Meanwhile, the public was encouraged to think that the coastal sinkings were of no serious importance. The Navy released reports claiming that counter-attacks were efficiently sending U-boats to the bottom of the Atlantic. Wild rumors of captured submarines being towed into ports were heard from Maine to Florida. Tidewater residents of the Virginia Beach area even claimed to have seen a submarine being clandestinely pulled into the Norfolk Naval Base. Unfortunately, these rumors were without foundation. The first statement about the U-boat onslaught, skillful in its avoidance of the extent of German success, was released by Secretary of the Navy Frank Knox on 24 January 1942, it read as follows:

> There are many rumors and unofficial reports about the capture or destruction of enemy submarines. Some of the recent visitors to our territorial waters will never enjoy the return portion of their voyage. Furthermore, the percentage of one-way traffic is increasing, while that of two-way traffic is satisfactorily on the decline. But there will be no information given out about the fate of enemy submarine excursionists who don't get home, until that information is no longer of aid and comfort to the enemy. This is a phase which is not only important from the purely military viewpoint of naval operations but from the viewpoint of psychological counter-offensive as well. The Nazis think themselves pretty clever in the field of psychological warfare. Secrecy surrounding the fate of these submarines is a counter-blow the American people can give them which may serve to shake some of their super-confidence. It is a game in which every American can and should participate.

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[16]Ibid., 3.

> The Navy will take care of enemy submarines, and the people can help the Navy and the country by keeping quiet about what they see or hear of the process or its results. The press and radio have made a great, patriotic contribution by voluntarily disciplining themselves in the matter of reporting such incidents as may have come to their attention unofficially. All the people can make the same contribution. Even if you have seen a submarine captured or destroyed, keep it to yourself. Let the enemy guess what happened.[17]

Nevertheless, the unadorned fact was that nobody in civilian life or the armed forces could have given out authentic information as to German U-boats captured or sunk in the waters off of Virginia or for that matter the entire east coast. The reason was that no German vessel had met either fate.

A few days later, however, Chief Aviation Machinist's Mate Donald Francis Mason, a PBY-Catalina pilot operating with the Atlantic Patrol Squadron Eighty-Two out of Argentia, Newfoundland, reported that he had sighted what appeared to be a U-boat and dropped his brace of bombs. The Navy's public relations officers transformed the report into language that compared Mason to Oliver Hazard Perry. Mason's supposed transmission appeared on the front pages of newspapers all across the country. It read, "Sighted sub, sank same." It won rapid acceptance into the national locution.[18] Mason would again enter the history books a few months later, when he became the second U.S. serviceman to claim a U-boat sinking. This time, without

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[17]New York Times, 24 January 1942, 1.

[18]Gannon, Operation Drumbeat, 275.

the Navy's public relations officers, he sank the U-503 southeast of Virgin Rocks. He immediately earned an ensign's stripe.[19]

Admiral Doenitz, a restless man, meanwhile, undoubtedly paced the floors of his office in Lorient, France; he was in a sense on trial. Hitler and his closest advisors were as land-minded as the policy-makers of World War I. After a quarter of a century, the judgment of Admiral Alfred von Tirpitz on the German High Command was again true: "They do not understand the sea."[20] But Hitler and his aides would understand figures that showed tonnage destroyed. Doenitz, therefore, expected his U-boat commanders to show the world a spate of sinkings that would never be forgotten.

German submarine commanders were bold in the waters off of Virginia, and for that matter all along the American east coast. One particular case in point occurred the night of 24 January 1942, off of the Virginia Capes. The U-66, under the command of Richard Zapp, sank the four-month-old motor tanker Empire Gem, bound for Britain with a cargo of 10,600 tons of gasoline from Port Arthur in the Carribean. At 0240, it was shaken by two torpedoes. The flames that enveloped her allowed Zapp to pick up the outline of the U.S. ore carrier Venore.[21] The U-boat raced ahead to lie in ambush for the oncoming vessel. Zapp pretended to be the Diamond shoal's Lightship that normally occupied the

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[19]Ibid., 380.

[20]Vat, Atlantic Campaign, 116.

[21]Gannon, Operation Drumbeat, 270.

area, and signaled the Venore to pass close to the lightship. It then fired two torpedoes into the vessel at short range. The Venore, with 22,300 tons of iron ore, sunk with the loss of twenty-three crewmen.[22]

As the slaughter continued, Doenitz ordered another group of U-boats to the east coast of the United States. This time he employed Type VII U-boats. They averaged 750 tons displacement and were called "medium high-seas boats." With a radius of action of 7,000 to 8,000 nautical miles, they had been designed for employment against convoys in the middle of the Atlantic. All concerned, however, were surprised and pleased at the performance of the Type VIIs in American waters: "... their radius of action was found in practice to be considerably greater than our [the German Naval High Command] theoretical calculations and previous experience had led us to assume."[23] This was partly due to fuel saving procedures adopted by their chief engineers on the outward passage. But another reason persisted, which Doenitz outlines in his diary, and which also indicates the sacrifices the crews of German U-boats made in their hunt against merchant traffic in American waters:

> In their eagerness to operate in American waters the crews sought every means to help themselves. They filled some of the drinking-and washing water tanks with fuel. Of their own free will they sacrificed many of the amenities of their living quarters in order to make room for the larger quantities of stores, spare

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[22]Ibid., 118.

[23]Doenitz, Memoirs, 204-5.

parts and other expendable articles which an increase in the radius of action demanded.[24]

As the months passed, the battle between the German U-boats and the forces of the Fifth Naval District waxed hot. January witnessed eight merchant sinkings, while February saw only seven. February's toll was less than January's only because the merchant traffic took up the practice of frantic and temporary scrambling for safety at night. The U.S. Navy and Army Air Forces hit back feebly at an enemy that grew bolder with each passing day. A break occurred in February, temporarily, but U.S. officials could only wait until U-boats returned in force for a second charge. It came with fury in March, by far the darkest month for the forces of the Fifth Naval District, when the Germans sank nineteen ships. The casualties had reached by the end of that month a total of forty-one ships, or 220,488 tons, since the American entry into the war. Thousands of tons of supplies and many lives had been lost. Empty life jackets became a common sight at sea. Occasionally, survivors were rescued and they would tell of the horror of the enemy firing at close range insuring the sinking and of their suffering in the ocean. Sometimes a Coast Guard Cutter would find life jackets whose wearers had nothing to tell. Such scenes were repeated frequently in the waters of the Fifth Naval District, which was

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[24]Ibid, 205.

soon becoming the most dangerous place in the world for Allied shipping.[25]

Operation *Paukenschlag* reached its furious climax in March, when U-boats sank twenty ships along the east coast in a little over a week. The score for a slightly over two months was 145 ships, totalling over 800,000 tons, with a loss of over 600 lives. As the battle became heated, the military authorities expressed the magnitude and loss in concrete terms. The average freighter carried an amount of cargo equal to four trains of seventy-five cars each. A standard tanker loaded enough gasoline on one voyage to supply the holder of an "A" ration book with gas for 35,000 years.[26]

Before March changed into April, however, the statistic compilers had to add several new losses, for on the last day of March, in slightly over twenty-four hours, U-boats sank six more vessels: City of New York, Tiger, T.C. McCobb, Menominee, Barnegat and the Allegheny. It appeared that nothing could stop the slaughter.

April came, and the tune changed. District convoys were initiated and at last, escort and patrol ships and planes made their presence known. Defense forces began to move aggressively against the U-boats. The newly-arriving U-boats, however, gave every evidence of starting a truly overwhelming third assault. They did score some more hits in the waters of the Fifth Naval

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[25]Fifth Naval District, "War Record," 3-4.

[26]Vat, Atlantic Campaign, 124.

District. Twenty-two ships were attacked in April and eighteen of them were sunk. May witnessed two attacks with one sunk. June listed a casualty rate of twelve sinkings, while July witnessed only two sinkings. By this time, however, attacks were harder for the Germans to carry out. U-boats had to stay submerged longer, move more stealthily, and experience the morale-sapping horror of depth-charging more frequently.

In April, the United States claimed its first kill on a U-boat in U.S. waters. On the night of 14 April 1942, the *Wickes*-class flush-decker destroyer USS Roper (DD 147) engaged and sank the U-85 under the command of Eberhard Greger. Twenty-nine bodies were eventually recovered, some with personal diaries that described the boat's last days. The second sinking occurred on 9 May, when the 165-foot cutter Icarus sank the U-352 under the command of Hellmut Rathke. This time, however, thirty-three crewmen were able to escape with their lives. In April, for the first time, German life jackets were picked up in American territorial waters bearing silent victims. In that same month, the Army, Navy and Coast Guard, in cooperation, were able to break Doenitz's plan. They hammered the enemy U-boats steadily until 15 July 1942, almost six months to the day from the launching of the first torpedo in Operation *Paukenschlag*. On that day the last ship to be attacked in the waters of the Fifth Naval District was torpedoed. The battle was over for Virginia

and the Fifth Naval District. The U-boats had failed, and America's defenses had prevailed.[27]

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[27]Fifth Naval District, "War Record," 4.

CHAPTER III

The Navy Reacts to the Storm

The threat presented by German U-boats was very real and very deadly, as related in the preceding chapters. The Navy knew before the outbreak of war that its defenses would have to be upgraded to repel Axis submarines. The Capes of Virginia and the Chesapeake Bay were the focal points that lay within the Fifth Naval District requiring the protection of the Navy. The Bay was of special interest, as it was invaluable to the economic well being of the country and the war effort. Furthermore, marine traffic needed protection to insure safe passage of goods to and from United States Allies, above all England, the one remaining bastion of the anti-Nazi effort in Europe.

Whereas the Army had the responsibility of repelling any assaults against the shore with its forts and ground forces, the Navy had the responsibility of protecting and controlling merchant traffic with its patrol vessels. Furthermore, in addition to protecting and controlling merchant traffic, the Navy also had the mission of destroying enemy vessels found in U.S. territorial waters. By working together as dictated in "Joint Action of the Army and Navy (FTP 155)," the two services sought to prevent any intrusion by the enemy.[1]

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[1]Commandant, Fifth Naval District, "History of the Fifth Naval District, 1939-1945," vol. 2, 1945, Guide no. 112, p. 523. Navy Library, Naval Historical Center, Washington, D.C.

In the Navy's view, to start with, the best weapon against the Nazi U-boats along the East Coast was the Local Defense Force, as established by the Navy's Basic War Plan Rainbow #1 (WPL-42) issued in the fall of 1939. The Local Defense Forces consisted not only of naval vessels in the area, but also those vessels of the Coast Guard after the Navy had assumed command of that service in accordance with a directive from President Roosevelt. These Local Defense Forces bore the brunt of defending American coasts against the enemy U-boats.[2]

In the spring of 1941, as the United States inched toward involvement in the war in Europe, the Navy issued Basic War Plan Rainbow #5 (WPL-46), which put coastal defenses on a war-time footing and set fortha number of specific goals and tasks. As a result of Rainbow #5, the Local Defense Force in the Fifth Naval District had numerous responsibilities: maintaining the security of the harbors, sweeping for mines, patrolling the coast, and protecting shipping.[3] Unfortunately, the jobs were easier said than done.

On the eve of World War II, the United States had a formidable navy in terms of sheer tonnage (over 300,000 tons). But the picture of strength presented by this figure was deceiving. Half of this force was in capital ships--vessels that could make no effective contributions to the prosecution of an antisubmarine campaign. This imbalance in shipbuilding reflected

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[2]Ibid., 418-419.

[3]Ibid., 494.

tradition more than anything else. It failed to grasp the Navy's pragmatic needs. President Roosevelt put his finger on this inherent weakness in American naval thinking when he wrote to Winston Churchill complaining that "the Navy couldn't see any vessel under a thousand tons."[4] As a former Assistant Secretary of the Navy, Roosevelt promoted the World War I submarine chasers that had performed so well in coastal waters. Unfortunately, they could not withstand the rigors of duty in the Atlantic Ocean.

Herein lay one of the fundamental deficiencies of American naval forces at a historic turning point. The Navy had made a commitment to ships which were far too big. On the other hand, the Commander-in-Chief preferred craft which were far too small. Nobody seemed willing to promote the ships that the Navy actually needed--escort vessels of seagoing type, destroyers, destroyer escorts and cutters. The decision would eventually be made, but after thousands of tons of merchant shipping had been sunk.

In a report to Admiral Ernest J. King, Commander-in-Chief, U.S. Fleet, in January 1941, Rear Admiral Adolphus Andrews, Commander of the North Atlantic Naval Coastal Frontier, which consisted of the American east coast down to North Carolina, he stated, "Should the enemy submarines operate off this coast, this command has no forces available to take action against them, either offensively or defensively."[5]

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[4]Gannon, Operation Drumbeat, 178-79.

[5]Vat, The Atlantic Campaign , 241.

The unpreparedness for war was not simply a naval problem. America's democratic government and civilian population was three thousand miles from the scene of battle. They had been reared on isolationism and had enjoyed over three-quarters of a century of peace at home. It was only logical that defense of the continental United States against direct attack was not a burning priority.

Nevertheless, the responsible officers in the Navy had forgotten the lessons learned in 1918, when six U-boats had sunk over 95 ships along the east coast of the United States in little less than six months.[6]

One reason for the Navy's poor memory was that between World War I and the beginning of World War II, the Navy had been obsessed with the idea of maintaining a two-ocean fighting fleet that emphasized the construction of capital ships. This fleet was designed to meet other fleets of heavy ships on the high seas. Unfortunately, what now transpired was that the Navy faced an attack by small vessels--German U-boats, and these vessels aimed not at the Navy's fleet force but America's merchantmen. At the heart of the matter lay a simple, but horrible fact: the sheer lack of antisubmarine vessels and aircraft. The British Admiralty had neglected small craft until the outbreak of war in 1939, the Navy Department failed to learn from this mistake, and neglected the same craft as well which in World War I had been shown to be essential for dealing with enemy submarines. The

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[6]Ibid..

reason was that the Navy, and U.S. legislators, too, believed that small vessels could be constructed quickly by using mass production methods.[7]

Consequently, at the time of Pearl Harbor, the Fifth Naval District was equipped with only four vessels--World War I era submarine chasers--capable of offensive action against submarines. The district was also in desperate need of naval patrol aircraft. Some short range aircraft were available, but the Navy needed aircraft that had the ability of searching far out to sea.[8] Facing these limitations as the Germans challenged our coasts were, as noted above, Admiral Ernest J. King and Rear Admiral Adolphus Andrews, Commander of the North Atlantic Naval Coastal Frontier.

The Navy's frontier system, created in 1929 and put into effect on 1 July 1941, then redefined in February 1942, involved assigning ocean zones of responsibility running out from a defined section of coastline for approximately 200 miles. The northernmost zone, which was home to the Argentia base in Newfoundland, was known as the Canadian Coastal Zone. Next came the Eastern Sea Frontier, extending from Nova Scotia to Jacksonville, Florida, and containing such ports as New York, the Chesapeake Bay, Wilmington, Charleston, and Savannah. Below the Eastern Sea Frontier lay the Gulf Sea Frontier, which took in the

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[7]John Terraine, The U-boat Wars, 1916-1945 (New York: G.P. Putnam's Sons, 1989), 410.

[8]Commandant, "History," 677-78.

whole coast of Florida, most of the islands in the Bahamas, part of Cuba, the entire Gulf of Mexico and the Yucatan Channel. Contiguous with the Gulf Sea Frontier was the Caribbean Sea Frontier, comprising of the Antilles, Trinidad and the Dutch islands of Curaco and Aruba with their extensive oil refineries. Finally, came the Panama Sea Frontier, which straddled the Isthmus, facing both ways in America's two-ocean war. Admiral King, while addressing his critics about convoys, estimated the area within these frontiers that he had to cover was over 700,000 square miles, which may be taken as the measure of the task facing him and the Navy and the difficulty it had in establishing a convoy system.[9]

The frontiers were further broken up into naval districts. The Eastern Sea Frontier, Admiral Andrew's command, consisted of seven districts, the First, Third, Fourth, Fifth, Sixth, Seventh and Eighth Naval Districts. The primary naval officer of the Fifth Naval District was the commandant. This post was held by Rear Admiral Manley H. Simons at the outbreak of the war. As the U-boat campaign heated up in the waters of the Fifth Naval District, it was recognized that the Commandant could not possibly handle all the tasks confronting him in managing the District. Consequently, the post of Assistant Commandant was created in June 1942 in an effort to alleviate some of the

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[9]Terraine, U-boat Wars, 414.

workload facing him. Captain Russel S. Crenshaw was assigned this post on 18 June 1942.[10]

Rear Admiral Simons's predecessor as commandant of the Fifth Naval District, Rear Admiral Joseph Taussig, had the unenviable task of attempting to obtain antisubmarine vessels in the period before the war began. Rainbow #5 required that they obtain enough ships for the Local Defense Force. Not including the four World War I era sub chasers that the commandants already had, they were able to acquire four 125-foot Coast Guard Cutters and one 165-foot Coast Guard Cutter. Two additional World War I era sub chasers were assigned but were not available because they were undergoing repairs.[11]

Discounting the four World War I sub chasers, which were mainly employed as protection for the minesweepers and assistance in laying buoys, and two of the 125-foot CGCs, which were usually in drydock undergoing repairs, only the 165 foot Cutter, the two World War I era sub chasers and the two 125-foot Cutters were actually available in January 1942 to keep the sea lanes open and to operate against the enemy submarines. These five vessels were the seagoing patrol force that was supposed to protect all shipping in and around the waters of the Fifth Naval District.[12]

In accordance with Rainbow #5, the Commandants were directed to obtain "vessels from other sources," but few such vessels were

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[10]Commandant, "History," 489.

[11]Ibid., 677.

[12]Ibid.

available. Admiral Simons had the authority to buy ocean-going craft from the civilian sector. Unfortunately, no privately owned craft fulfilling the minimum specifications for duty were found in the district. Those deamed suitable for conversion were unobtainable, because the owners refused to sell. Of the nineteen vessels envisioned, only one, the Maryland pilot boat Baltimore, was acquired; she did not enter service until late February 1942. Ships obtained from government sources, however, were all ill equipped, lacking radar and sonar, and although the Coast Guard ships were the best, they too were badly in need of repairs. As a result, the Fifth Naval District had an insufficient number of patrol vessels. Simply put the defenses mustered at the start of the war were inadequate for the formidable task at hand.[13]

Admiral Simons, however, never gave up seeking new ships for his district. He frequently asked Admirals King and Andrews to give him more. The latter were aware of Simons's predicament, but were in the difficult position of having to send the few ships available to the areas they determined to be in the most critical need, that is, the Pacific and the middle and eastern Atlantic.

The Navy also lacked suitable aircraft to fight German U-boats. In certain ways, the aircraft situation was even worse than the ship situation. An Army Appropriation Act passed by Congress in 1920 stated that the Army would control all land-

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[13]Ibid., 497.

based planes and the Navy sea-based aircraft. Unfortunately, the United States had no organization comparable to Coastal Command of the Royal Air Force, which, despite certain deficiencies, was trained in the delicate art of maritime patrol, which required the following: special navigation skills, ship-recognition abilities and being trained in antisubmarine tactics.[14] Nevertheless, at the outbreak of the war it was upon the pilots and the aircraft of the Army that the Navy had to rely on for antisubmarine patrols and searches. To make matters worse these United States Army Air Force (USAAF) aircraft were not equipped for communication with ships and its pilots untutored in cooperation with the sea service.[15]

Prior to the arrival of German U-boats in the coastal waters of America, two flights daily of one plane each from Langley Field patrolled the shipping lanes in the Fifth Naval District. The flights began on 18 December 1941 by the 65th Observation Group of the First Air Support Command. These patrols flew from shore to a line forty miles offshore stretching from Cape Henlopen to Cape Hatteras. These patrols were gradually extended until by the middle of January, the 65th Group was making patrols from Langley twice daily on a course of 125 degrees east-southeast for 600 miles to seaward and back.[16]

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[14]Donald MacIntyre, Battle of the Atlantic (New York: Macmillan, 1961), 139.

[15]Terraine, U-boat Wars, 417.

[16]Ibid.

Admiral Simons, however, had a different vision of what the Army patrol should be. In a personal letter to General Tilton on 10 January 1942, the Admiral stated that the ideal patrol would be as follows:

> Six long range patrol planes with three flights daily; the patrol plane would proceed to a point 150 miles offshore and then zigzag south as far as the latitude of Diamond Shoals, returning then to base. In this way three times daily that part of the ocean is searched where carrier or catapult operations could be carried on.[17]

At the beginning of the war it was recognized that a key target for the German U-boats would be the region off the Capes of Virginia leading to the Chesapeake Bay. As a result, on 19 December 1941, a presidential directive established the Chesapeake-Norfolk Defensive Sea Area--a military zone in which the combined armed forces of the Army and Navy would work together to repel any armed offensive. On 15 July 1941, the Chief of Naval Operations set up the following boundaries for the Defensive Sea Area:

> A line running from the southernmost point of Cape Charles, Virginia, to Cape Charles Lighthouse on Smith Island, thence on a bearing 130 true to seaward limit of U.S. territorial waters to the parallel Latitude 36 51′ 15" North and thence west meeting the shore at the United States Coast Guard Station, Virginia Beach, Virginia.[18]

On 11 December 1941, supervision of this area was begun with the installation of the Outer Guard Ship approximately four miles east of Cape Henry. The issuance of "Notice to Mariners" on 24

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[17]Ibid.

[18]Commandant, "History," 618.

December 1941, formally instructed all incoming vessels approaching the Bay to stop and make contact with the outer guard ship for identification. Only after permission was granted could the vessels enter the Chesapeake Bay. Ships registered with the local pilots were exempt, and this provision alleviated some of the burden of the outer guard ship, which had to process the increasing number of vessels seeking safe anchorage in the Bay.

Along with the outer guard ship, an inner guard was established in mid-December 1941 along the channel inside of the Capes. Two 75-foot patrol craft served as the inner guard. These and the outer guard were the only patrols available in the region until April 1942, when additional vessels were assigned.[19]

In January 1942, an additional feature was added to the defenses of the Bay: an examination vessel. The vessel, placed inside the entrance of the Chesapeake Bay, would place naval personnel on suspicious vessels arriving from foreign and neutral ports. The first ship assigned to this position was the United States Coast Guard Cutter Jackson, which served as the examination vessel until replaced by the lightship Diamond Shoals, which was anchored just north of the channel entrance.[20]

The U-boat menace had been foremost in King's mind when he was Commander-in-Chief, Atlantic Fleet, but as the Pacific war

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[19]Ibid., 623-25.

[20]Ibid., 632. The Diamond Shoals performed vital functions during the period of the submarine offensive until she was rammed and sunk by a passing tugboat late in the war. It had been so crucial to harbor operations that it was replaced the next day.

heated up he became primarily interested in that theater of operations.[21] It was natural. As bad as the submarine threat was, greater dangers elsewhere took King's attention. His immediate priority, once war was declared, was to stop Japan, and, together with General George C. Marshall, to work with the British Chiefs of Staff to develop a unified Allied strategy.[22] In the Pacific, the United States Navy was fighting almost alone against a major sea power. In the Atlantic, King believed, the battle should be left to the British. King had the attitude that "it was Britain's problem, let them handle it."[23] This posture may have been a cover for the wily admiral. In fact, his hands were tied. The United States Navy was not ready for the Battle of the Atlantic. Owing to prewar naval disarmament treaties, isolationism, the Depression, and a variety of other causes, the Navy had neither the resources nor the organization to fight submarines. King could only urge his commanders to do the best they could with what they had. It would not be enough.[24]

As the United States entered World War II, the Navy was making efforts to prevent U-boats from entering American harbors. They included setting out antisubmarine nets and booms. The need

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[21]Thomas B. Buell. Master of Sea Power, A Biography of Fleet Admiral Ernest J. King (Boston: Little, Brown and Company, 1980).

[22]Ibid., 283.

[23]Felix Reisenberg, Sea War (New York: Rinehart and Company, 1956), 119.

[24]Ladislas Farago. The Tenth Fleet (New York: Ivan Obolensky, 1982), 84.

for these seemed clear even before the war began. A month before the Axis powers declared hostilities against the United States, Rear Admiral Simons wrote Admiral Stark, then Chief of Naval Operations, advising the following:

> it is in my opinion ... (we should) begin putting in our harbor entrance nets and possibly(lay) some of our harbor entrance mine fields. It would seem from the newspapers, that possibly the war in the Atlantic is now approaching our side.[25]

However, in spite of this foresight, net defenses were implemented only after Pearl Harbor. Because of the large gap and turbulent waters between the Capes, the nets were impractical at that distance out to sea. The calmer water at the entrance to Hampton Roads, however, made the use of nets both efficient and effective. The installation of the Hampton Roads net began on the day after Pearl Harbor. By 23 January 1942, the Commander, Inshore Patrol, reported that the gate in the completed anti-motorboat boom across the entrance to the Roads was in operation, it was normally open during daylight and closed at night. In addition, a four-foot-mesh, antisubmarine net was later installed under the boom. Completed by 21 September 1942, this net was designed to stop enemy "midget" submarines like those used by the Japanese at Pearl Harbor.

While the Navy installed these nets it also placed anti-torpedo nets at other locations considered vital and vulnerable to enemy attack. They covered the pier at the Naval Operations Base, the Norfolk Naval Shipyard and Newport News Shipbuilding

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[25]Commandant, "History," 518.

and Drydock. The nets remained in place throughout the period of the German submarine offensive and were removed only in late 1943. They were kept in storage in case they should be needed again.[26]

The Navy installed other nets at the entrance to the York River. In World War I, the York was a fleet anchorage. Although it was never used as such during World War II, the Navy prepared the area for should an emergency situation arise. The nets went in starting on 26 December 1941. By March 1942 the Navy completed its other defensive measures. They consisted of anti-motorboat booms and other fixed obstructions. These defenses, like the ones mentioned previously, were removed in the fall of 1943, when the U-boat threat had largely disappeared.[27]

The Navy believed that not only enemy submarines but enemy mines were a strong possibility. In World War I, German U-boats had laid mines at Thimble Shoals, near the entrance of the Bay, as well as in the areas just south of Cape Henry and the area south of Winter Quarter Shoal. Accordingly, these areas began to be swept regularly as soon as America entered the war. The Navy also swept the following on a regular basis: Parramore Bank, Lookout Shoal, Diamond Shoal, Lookout Bight, and the Capes of the Chesapeake.

Because the areas to be swept were vast, swept channels were eventually instituted. By 18 December 1941, the first permanent

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[26]Ibid., 518-20.

[27]Ibid., 521.

buoys marked a swept channel off the entrance of the Bay. For friendly vessels, however, the swept channel could not remain in the same place. This was the result of several factors: the fluctuating numbers of incoming and outgoing merchant ships, enemy activity within the region that threatened maritime traffic, and recently-sunken vessels that became a hazard to navigation.[28]

To guard against U-boats the Navy laid elaborate mine fields. It did so to destroy enemy submarines primarily but also to deter them. Neither aim was achieved. Far from trapping the U-boats or discouraging them, the mine fields rendered the already dangerous navigation situation even more hazardous for American and Allied merchantmen. One of the initial plans called for a mine field stretching the coast of Maine down to Florida. It was rejected as impractical, and instead two major mine fields were laid to defend U.S. Atlantic coasts. The largest mine field, consisting of over 3,300 was laid around the anchorage on the Gulf side of Key West. The field proved to be a curse rather than a blessing, because it forced all westbound traffic to take an additional eighteen to twenty hours to steam around the

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[28]Ibid., 589-595. Changing channels frequently confused the captains of the merchant ships. The confusion would finally be eliminated on 24 July 1943, when the third Commandant of the Fifth Naval District, Rear Admiral Robert F. Leary, created a single swept channel for both the incoming and outgoing traffic. Furthermore, the channel was kept as straight as possible, which eliminated the confusion created by turns that had been part of the previous channels. By maintaining a single channel, it also allowed the few minesweepers available in the District to be put to better use.

Rebecca Shoals before entering the safety of an anchorage. It was so dangerous to navigate that during the first ten weeks of the field's existence, four ships entered it, hit mines, and sank.[29]

The other mine field, which consisted of 365 mines, was laid off the Capes of the Chesapeake. Its dangers were demonstrated tragically on 15 July 1942. While attempting to conduct two damaged vessels to Hatteras Inlet after an encounter with the U-576 off of Ocracoke Inlet, North Carolina, Captain Newton Nichols in the Spry, a Navy Corvette, led the tanker Mowinckel and the freighter Chilore directly into the Hatteras mine fields. Captain Nichols, who was a retired officer in the United States Navy, apparently was unaware of the existence of this dangerous area. He had instead a "rather hazy recollection" that there were some restrictions on anchoring west of Hatteras. Warning of the mine field had been given in the "Notice to Mariners 175," issued on 20 May. Captain Nichols apparently had never received it. The results were deadly.[30]

Immediately upon entry into the mine field, the damaged vessels Mowinckel and Chilore encountered contact mines and were shaken by several explosions. Under the impression that his tiny flotilla was once again under attack by a U-boat, Nichols ordered the ships, defenseless as they were, abandoned. The crews took

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[29]Farago, Tenth Fleet, 96.

[30]Robert Freeman, War Diary: Eastern Sea Frontier (New Jersey: Shellback Press, 1987), 414.

to the life boats and rowed to the safety of the shore. Shortly thereafter, the Coast Guard patrol vessel 462, which had been placed on duty in the area to warn away ships from the endangered waters, caught up with Nichols in the Spry. From the Coast Guard patrol vessel Nichols learned for the first time his exact position and realized the extent of the danger. Realizing that he could give no real assistance to the merchantmen, he conned the Spry out of the mine field, and behind the 462 proceeded to rejoin the convoy that he had left earlier.

The sequel to this unhappy event was just as unfortunate. Within a few days, a channel was swept into the ships where they lay in the dangerous area. Two tugs were directed to bring them out. One, the Keshena, mistakenly moved out of the swept channel, struck a mine, and rapidly sank. The other tug brought the vessels out safely, but as they were being towed to Hampton Roads to be salvaged, the Chilore capsized and was never righted. Such accidents often occurred. As long as there were minefields and ignorant captains, the tragedies would occur again and again.[31]

While booms and mines were put in place, both the military and civilian sectors were initiating imaginative proposals. The British Admiralty proposed that the United States Navy should construct a mine barrier along the 3,000 miles of the east coast. As mentioned, Americans had already studied the plan and discarded it as unrealistic. An amateur sailor suggested

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[31]Ibid., 418-19.

defending the Atlantic seaboard by deploying a string of scout boats within hailing distance of one another, five miles off the coast from Nova Scotia to the Florida Keys. Another amateur proposed setting up antisubmarine nets along the entire coast.[32]

President Roosevelt contemplated reviving "Q-ships," armed merchantmen disguised as helpless targets to lure U-boats into an attack. At the proper moment, the crew of the Q-ship would unmask its ordnance, open fire on a U-boat that it had attracted and destroy it. During World War I, the British had had spectacular successes with the Q-ships, but in 1939 and 1940, they proved something of a failure, German U-boats sinking two of them. The United States Navy, nevertheless, decided to employ its own Q-ships, perhaps in deference to its commander-in-chief.[33]

"Project LQ," began on 19 February 1942, when three ships were purchased and secretly refitted as Q-vessels--two 3,200-ton freighters, the SS Carolyn and Evelyn, and the trawler Wave. For security reasons they were renamed. The Wave became the U.S.S.

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[32] T.J. Belke, "Roll of Drums," United States Naval Institute Proceedings, April 1983, 60-61. In addition to these schemes, one of the most novel solutions was the secret plan in the Bureau of Ships to build a new class of torpedo-proof ships with an inner hull and outer hull, separated by twelve-feet of solid ice, which would be maintained at freezing temperature by a shipboard refrigeration plant. Naval technicians estimated that a torpedo would not be able to penetrate the ice, therefore the ice ship would be unsinkable. While this plan rivaled Churchill's proposal of constructing airstrips on icebergs in the North Atlantic, it never really received serious consideration at the highest levels.

[33] Ibid.

Eagle, the Carolyn the U.S.S. Atik, and the Evelyn became the U.S.S. Asterion. The Atik and Asterion received four 4-inch guns, four 50-calibre machine guns, six "K" guns, depth charge throwers, and sonar. The Eagle was similarly equipped, except that it received one 4-inch gun instead of four.[34]

Admiral King opposed projects like "LQ," but went along with the President's quixotic plans for want of anything better. LQ was a disaster. It took the lives of many American seamen. The trouble began on 26 March 1942, when the Atik, 300 miles east of the Chesapeake Bay, had the misfortune to sail into the sights of one of Germany's most successful and resourceful U-boat commanders, Reinhard Hardegen, in the U-123. The Atik was the first Q-ship to engage an enemy U-boat, and this engagement proved to be its last. The Atik and the U-123 crossed paths on 26 March 1942 at 2037 Eastern War Time. The U-123 torpedoed the Atik, which immediately began to lose way. Hardegen, upon seeing that it was a small prize, ordered the ship to be finished off by gunfire. The Atik maneuvered towards the U-boat and dropped its disguise. Hardegen, however, was no novice. He quickly submerged and torpedoed the Q-ship. He patiently watched as it sank and the crew abandoned ship. None of the 142-man complement

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[34]Samuel Eliot Morison, History of the United States Naval Operations in World War II, Vol. 1, The Battle of the Atlantic, September 1939--May 1943 (Boston: Little, Brown and Company, 1964), 282-83.

crew survived the ordeal at sea. The Atik and her men were lost.[35]

Five Q-ships were eventually built, but not one managed to sink or even damage a U-boat. On the other hand, they frequently got into predicaments and had to be rescued by regular Navy forces. Admiral King, like his counterparts in the Royal Navy, had had enough. He sounded the death knell for Project LQ in September 1943. Despite careful preparations and elaborate secrecy, the Q-ships had failed. Samuel Eliot Morison, the unofficial United States Navy historian, described them as "the least useful and most wasteful of all methods to fight submarines."[36]

Another Navy project for the protection of merchant shipping was a kind of rudimentary escort system. Nicknamed the "Bucket Brigade," it began on 27 March and consisted of the movement of ships from one naval district to another, up and down the coastline, under a series of local escorts. Morison stated:

> The Bucket Brigades was the best defensive measure that could be put into effect given the paucity of escort ships and planes. Ships steamed during daylight hours as close to the shore as safety permitted, and at night took shelter in a protected anchorage. This system was practicable because the Atlantic Coast north of (Cape) Hatteras is divided into approximately 120-mile stretches between good harbors, which is about the maximum run that a slow merchant ship can make during daylight. South of Cape Henry, where there were no

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[35]Gannon, Operation Drumbeat, 323-27.

[36]Ibid., 330.

adequate harbors of refuge, the Eastern Sea Frontier established net-protected anchorages every 120-miles.[37]

Safe anchorages were usually natural coastal shelters such as the Virginia Capes, but south of Virginia the only safe harbors were in Charleston, South Carolina and Jacksonville, Florida. The Fifth Naval District augmented the anchorages by placing a netted anchorage west of Cape Lookout, North Carolina, and erecting a mined anchorage southwest of Cape Hatteras, North Carolina. Such anchorages were excellent locations for damaged ships that had to fall out of a convoy.[38]

Once the "Bucket Brigades" went into operation, however, serious losses continued. It rapidly became apparent that they were not an answer to the U-boats. For the time being, however, they were almost all that was available. Actually, the Navy augmented them with other operations. In imitation of a British operation of 1915, the Navy mobilized small craft--fishing boats, yachts, schooners, motorboats, and any other craft that were up to the task--as an auxiliary fleet. Officially designated the Coastal Picket Patrol, it became known to its personnel, however, as the Hooligan Navy because of its civilian and ramshackle character. The official Coast Guard title, "Corsair Fleet," was little used.[39]

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[37]Morison, Battle of the Atlantic, 254-55.

[38]Fifth Naval District, "War Record of the Fifth Naval District, 1942," 1943, Guide No. 129, p.461, Operational Archives, Naval Historical Center, Washington, D.C.

[39]Morison, Battle of the Atlantic, 268.

Rear Admiral Andrews was a proponent of this operation, although preliminary attempts at using small craft as "antisubmarine lookouts" made it clear that the vessels obtained were not able to withstand the rigors of the Atlantic. He ordered the district Coast Guard Office of the Fifth Naval District to assemble as many private yachts as possible. Their official status was the Coast Guard Temporary Reserve.

On the morning of 27 June 1942, the crew of the Diamond Shoals witnessed a peculiar wartime sight near the channel entrance. What appeared to be a peacetime yachting flotilla, consisting of sixteen small yachts ranging in length from 45 to 65 feet, passed by on their way out to sea for a shakedown cruise. The sixteen yachts were assigned to eight stations just outside the Capes for a 24-hour patrol. Before long, however, the smaller craft began straggling back in. The rough, large waves outside the Bay were more than a match for them. Many never reached their assigned stations. Those that did were unable to last out the 24-hour patrol assigned, and by the next morning all of them were already in port or en route. These vessels were simply not suited for the task. Some were kept for inner guard and patrol duty as part of the Local Defense Force; the rest were returned to the owners, who were thanked and informed that their vessels were deemed unfit for duty.[40]

Rear Admiral Andrews was undeterred by the poor showing of the yachts. On 14 July 1942, he ordered the district commandants

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[40]Commandant, "History," 662-63.

to initiate the plan of the Coastal Picket Patrol. The main vessels employed were sailing yachts. (Most of the power boats suitable for offshore patrol in the Fifth Naval District had already been drafted into the service by the Navy or Coast Guard.) Out of 54 vessels collected, only 23 were eventually employed. They were equipped with portable underwater sound listening gear and armed with demountable 30-caliber machine guns. Depth charges had been considered, but the Navy did not want to receive a message on the order of "sighted sub, sank self." Only one large schooner in the district was found to be fast enough to drop charges set for 100-feet and get away safely. It was the only one so armed.

The first Coastal Picket Patrol began on 7 September 1942 and patrolled a station thirty miles east of Winter Quarter Shoals. In the following months, as many of the prescribed stations were patrolled as weather and the availability of craft allowed. On 1 December 1942, Admiral Andrews issued a document setting forth a remarkable patrol doctrine for the coastal pickets. If a picket came into contact with a U-boat, it was expected not only to radio its location, but to attack it:

> When an enemy submarine is sighted on the surface, close to within your gun range and open machine gun fire to clear personnel from the bridge. Prevent his crew from manning their guns. Keep your guns ready for immediate surface attack at all times. Do not attract his attention by firing from too long a range. The element of surprise is a major factor in successful offensive action.[41]

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[41]Ibid., 666.

Propitiously, by the time this order had been issued, U-boats had ceased their bold attacks in the areas to be patrolled. No yacht ever had the opportunity to engage a U-boat. If one had, as outlined above, it would have been suicidal. The yachts' toughest battle, however, was not with enemy submarines but with mother nature. Numerous cases were cited when the craft were missing for days following storms. Some vessels had carrier pigeons, and one once reported its location and condition back to base.

Admiral Andrews' Coastal Picket Patrol never really worked. The yachts sank no submarines, nor did they engage any. But it is impossible to dismiss the patrols entirely. They reported numerous sonar contacts, though they led nowhere. Usually by the time a regular Navy or Coast Guard warship with sonar arrived, the contact had disappeared. Undoubtedly, enemy submarines patrolling coastal waters knew about the pickets. Often they may have submerged and fled. United States submarines in the Pacific theater found Japanese sampans to be a nuisance. The sampans, of course, were analogous to the Coastal Picket Patrol vessels. American submarines reported that, not knowing how a sampan was armed, submarines could not risk remaining on the surface. Neither could they afford to give away their position by shelling or torpedoing the sampans. The German submarine commanders probably had the same reaction. Consequently, the pickets may have had some value. Overall, however, they lent a touch of color to the antisubmarine effort, but that was all. On 9

November 1943, the Coastal Picket Patrol was officially retired and withdrawn from operation.[42]

Another approach was to use commercial fishing vessels to spot enemy submarines and aircraft. Called the Confidential Observers Plan, Rear Admiral Andrews initiated it on 7 April 1942 as an adjunct to the patrol of the Atlantic. Two problems had to be solved for it to work. First, fishing boats had to be found that could be entrusted with confidential information. Second, the boats had to be provided with a means of rapid and secure communication.

By the middle of June 1942, seventeen skippers and crews of the offshore fishing vessels had been enlisted and were operating under the plan. Eventually, practically every offshore fishing vessel was enlisted in the program. In the Fifth Naval District alone, 143 vessels were cooperating. Sixty-nine of them were equipped with radio telephones by the Navy. Fishing vessels that had joined the operation in other districts entered the waters of the Fifth Naval District every spring to fish. Thus the number of observers grew.[43]

The project was vindicated on at least one occasion. On 13 April 1942, Captain Quinn of the fishing vessel Sea Roamer, operating out of Hampton, sighted an enemy submarine and plotted its position to be twenty-miles east of Currituck. He reported the sighting to the Naval Operations Base in Norfolk. Attack

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[42]Ibid., 667-68.

[43]Ibid., 669.

aircraft were on the scene in less than an hour. The enemy submarine, however, had departed the area by this time. While the planes failed to locate the U-boat, this incident coming soon after the establishment of the fishing pickets, demonstrated the value of the plan and contributed to its adoption elsewhere along the Eastern Sea Frontier.[44]

Besides the Coastal Picket Patrol and the Confidential Observers Plan, one other wartime organization gave devoted service to the antisubmarine campaign--the Civil Air Patrol. As a nation-wide organization, the CAP performed a variety of tasks: reconnaissance, fire patrol, rescue work, and air cover for convoys. The idea behind it was the same as that behind the Coastal Picket Patrol: to mobilize amateurs with private craft for patrol and combat duty. Perhaps as many as 100,000 civilian pilots of the United States were ineligible for the armed forces by reason of age or physical disability, but they could still fly, and even more to the advantage of the authorities, they supplied their own planes.[45]

Compared to the Coastal Picket Patrol, the Civil Air Patrol was much more independent. The Coast Guard directed the Picket Patrol, but the Civil Air Patrol organized, governed, and disciplined itself. When the German attack on merchant shipping began, the Civil Air Patrol volunteered to establish a sea-lane

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[44]Ibid., 669-70.

[45]Louis Keefer, "Fliers on the Home Front," Virginia Cavalcade, Winter 1992, 111.

air patrol base near Atlantic City. That was in late February 1942, when air coverage along the Eastern Sea Frontier was meager, so its services were gladly accepted. At first its planes were completely unarmed, serving only for locating U-boats or survivors. But as time went on the larger aircraft were armed with either a 325-pound depth charge or two 100-pound demolition bombs. In the early phases of the battle, however, their principal role was to sight damaged vessels, give the location of survivors in lifeboats, and report suspicious vessels.[46]

By September 1942, twenty-one Civil Air Patrol bases along the nation's Atlantic and Gulf shores, stretching from Bar Harbor, Maine, to Corpus Christi, Texas. The only Civil Air Patrol base in Virginia was established at Parksley airport on Virginia's eastern shore. Like many of the other Civil Air Patrol airfields, Parksley before renovation was little more than a scrubby Accomack County pasture dotted with pine saplings and surrounded with deep drainage ditches.

The airport had been developed originally in the mid-1930s by funds granted by the Work Projects Administration (WPA). By the time the Civil Air Patrol pilots arrived in 1942, the little airport had been closed for a time. Also, the field's two runways were dangerously short. The NW-SE runway was only 1,600 feet long. The NE-SW crosswind runway was even shorter. Civilian aircraft, while able to operate on small runways, generally needed 2,000 feet to get airborne. Yet, despite these

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[46]Morison, Battle of the Atlantic, 276-8.

drawbacks, the authorities still decided to use the field because of its location, which was about halfway between the Civil Air Patrol base in Delaware and the one in North Carolina. Finally, it offered mostly fog-free flying weather.[47]

The Civil Air Patrol at Parksley had two tasks, convoy patrols and beach patrols. Convoy flights went out twice a day. The dawn patrol left at first light, the afternoon patrol just after lunch. The beach patrol, was less frequent. It covered the shoreline between Virginia Beach and Rehobeth Beach in Delaware, searching for derelict naval mines and spent torpedoes. Occasionally, pilots would spot dead bodies floating in the water near the shore and would report them to the nearest Coast Guard Station.

While the Civil Air Patrol regularly used smaller aircraft such as Piper Cubs, Taylorcraft, and Aeroncas for a plethora of duties not connected with the antisubmarine effort, the coastal patrols required heavier and more powerful Fairchilds, Stinsons, and Cessnas--aircraft with at least ninety horsepower engines, engines powerful enough to carry two men over several hours against the ocean winds and weather. Though these aircraft were tiny in comparison to their military counterparts, the sight of one approaching low over the water caused even the most daring U-boat commander great concern. Since he could not risk the chance of being spotted, he would order a dive before he could recognize

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[47]Keefer, Fliers on Front, 112-115.

whether the incoming aircraft was a tiny Cessna or a larger military plane.

During the nearly fifteen months that Parksley dispatched regular patrols, beginning in late 1942, not one ship was sunk in its designated area--the same area in which during March 1942 alone, German U-boats sank 20 vessels. While the submarine threat was at its worst--January 1942 through July 1942--Civil Air Patrol pilots flew some 86,685 missions. They suffered casualties: 90 aircraft were lost, 74 of them at sea, 26 crewmen died and 7 were seriously wounded.[48]

The Civil Air Patrol was credited, in total, with spotting 173 submarines, bombing 57, and sinking or damaging 2, not counting those destroyed by the army or navy aircraft they called in for assistance. The patrols also reported 91 vessels in need of some form of help and were responsible for finding 363 survivors and recovering 36 corpses from the ocean waters. Furthermore, at the special request of the Navy, these patrols performed over 5,500 special convoy missions.[49] The dedication and heroism of these civilian fliers made a superb contribution to the antisubmarine campaign.

In the summer of 1943, when the Navy took over all aspects of antisubmarine warfare, the Civil Air Patrol squadrons were assigned other duties. Fishermen and island dwellers were sad at the cessation of their flights; they missed the brightly-colored

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[48]Ibid., 119.

[49]Gannon, Operation Drumbeat, 357.

one-engine craft with the white pyramid mark. They had become accustomed to seeing them during daylight hours, however foul the weather. When the war ended, so did most of the Civil Air Patrol's military-oriented activities. The Parksley airfield survived for a time, but finally reverted to farmland in the early 1950s, having earned its place in the history of Virginia and in the Battle of the Atlantic.[50]

In the winter and spring of 1942, officers of the Fifth Naval District and proposed the convoy system. Admiral Simons and his fellow commandants, however, unanimously opposed the introduction of the system because of the lack of escorts.[51] They believed that a convoy without adequate protection was worse than none at all. On 6 March 1942, King agreed with the commandants' analysis, but he urged implementation as soon as possible.

Aid soon came from the convoy-wise British, who in late March 1942, lent fourteen 83-foot armed trawlers to the United States, four of which were pressed into duty in the Fifth Naval District.[52] These vessels went immediately into service. Two went out on patrol by as early as 31 March.

The United States Navy was hardly unacquainted with convoy tactics. Though averse to learning from the hard experiences of the Royal Navy, it had these experiences to examine. Also it had

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[50]Keefer, Fliers on Homefront, 123.

[51]Freeman, War Diary, 141-42.

[52]Ibid., 132.

the wisdom of its own great seaman of the First World War, Admiral W. S. Sims, who had written:

> Our tactics should be such to force the submarine to incur this danger(that of encountering the escorts) in order to get within range of merchantmen. It, therefore, seems to go without question that the only course for us to pursue is to revert to the ancient practice of convoy. This will be purely an offensive action because, if we concentrate our shipping into convoy and protect it with our naval forces, we will thereby force the enemy, in order to carry out his mission, to encounter naval forces . . . we will have adopted the essential principle of concentration while the enemy will lose it.[53]

In February 1942, however, the sad truth was that the United States naval commanders were moving toward the convoy system as much out of desperation as rational calculation. Navy forces patrolled the sea lanes and hunted the U-boats when they betrayed their positions by sinking merchantmen, but results had been meager. This method had proven to be futile in World War I, when President Wilson referred to it as "hunting the hornets all over the farm."[54]

Convoys, as history demonstrates, are the best defense against U-boats. The Navy understood through its experience with transatlantic convoys, that U-boats would avoid convoys, preferring the easy targets, such as single, unescorted cargo ships. Solitary vessels not only were easier targets; they presented a lower risk of retaliation. With undeniable facts like these in mind, the Navy gradually overcame its reservations

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[53]MacIntyre, Battle of the Atlantic, 140.

[54]Morison, Battle of the Atlantic, 134.

based on the small number of ships that were available for escort duty.[55]

The convoy system finally went into operation along the east coast of the United States on 14 May 1942. On that day, Virginia, for the first time, was linked with a regular coastal convoy to Key West, Florida. Convoys were extended further north and south and were continually reinforced with more and more ships and aircraft. The effect was immediately noticeable. The number of ship sinkings declined. The month before the convoys began, 23 vessels went down in the Eastern Sea Frontier, but in May, only 5. The number increased, however, in June, to 13, but fell to only 3 in July. The convoy system continued to operate throughout 1942 and until the U-boat threat dissipated.[56]

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[55]Chief of Naval Operations, "Anti-submarine Warfare in World War II: OEG Report No. 51," (Charles M. Sternhell and Alan M. Thorndike), 1946, Guide No. 435, p. 25, Operational Archives, Naval Historical Center, Washington, D.C.

[56]Morison, vol. 10, The Battle of the Atlantic Won, May 1943--May 1945, 361. The convoy system lasted until 28 May 1943 when a joint announcement was made by the British Admiralty and the United States Navy: "Effective at 20:01 this date, eastern standard time (00:01 May 29 Greenwich Mean Time), no further trade convoys will be sailed. Merchant ships by night will burn navigation lights at full brilliancy and need not darken ship."

CHAPTER IV

HARBOR DEFENSES

Prior to America's entry into World War II, both the Army and Navy knew that only through cooperating with each other would they be able to protect the Chesapeake Bay and the Virginia Capes. Neither the Army with its artillery emplacements, nor the Navy with its fleets could act effectively alone. Acting together, the two services would be able to control the shipping traffic in the region, provide an effective system of issuing warnings about possible enemy activities, and deliver an appropriate retaliatory response.

The agency of Army-Navy cooperation in harbor defense was the Harbor Entrance Command Post (HECP), which came into being in the summer of 1941 and was housed in the United States Weather Bureau building at Fort Story, Virginia.[1] Both services occupied offices in the building and staffed them with liaison officers. Their mission was to collect and disseminate information of activities in the defensive sector to their respective military commands. They coordinated the Army's Harbor Defenses with the Navy's Inshore Patrol Forces. The commanders of both the Harbor

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[1]Fielding L. Tyler, "No Subs in the Bay," The Keeper (Summer 1992): 5.

Defenses and the Inshore Patrol received pertinent information from the HECP, enabling them to take prompt action in case of hostilities.[2]

The HECP remained in the U.S. Weather Bureau Building until July 1942. Plans for a permanent, underground facility at Fort Story had begun as early as 22 April 1941, when the Local Joint Planning Committee met and decided to construct a protected harbor defense command post. The permanent HECP occupied its new home in July 1942. In 1943, the facility was further enlarged to accommodate the emergency center for the Fifth Naval District Commandant and the Navy's command operations. This growth housed "Battle Station Three," an exact replica of the Joint Operations Center located at the Naval Operations Base in Norfolk. The replica was to be put into use if the Joint Operations Center ever fell prey to attack and was destroyed; the emergency center would then be immediately activated and combat operations could be resumed.[3]

By the end of 1942, the HECP had reached maturity. By this time, it had become the home for the joint command post of the Harbor Defense Commander, the Approach Commander and the Entrance Force Commander. Throughout the war, Army and Navy personnel manned the HECP around the clock, seven days a week, 365 days a year. The Army ran its own operations room which allowed it to

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[2]Richard P. Weinert, Jr. and Col. Robert Arthur, Defender of the Chesapeake: The Story of Fort Monroe (Annapolis: Leeward Publications, 1978), 228.

[3]Commandant, "History," 536-37.

coordinate control of the harbor defenses with the joint command of the port entrance. Naval personnel also maintained an independent operations room which was the base of operations for the Naval Intelligence Unit. HECP had more than 100 men assigned to it from both the Army and Navy. Most were "observers, radio operators, signalmen, maintenance men, teletype and telephone operators, with necessary assisting and supervisory personnel."[4]

The HECP had an impressive arsenal of weapons to deploy in its fight against the U-boats (see figure 1). The first was the mine field. Richard Weinert and Col. Arthur, authors of Defender of the Chesapeake: The Story of Fort Monroe, describe it with precision:

> The underwater project provided an outer defense of twenty-two groups(nineteen mines each) of controlled mines in two fields of two lines each in the main channel northeast of Cape Henry, and an inner defense of six groups in two lines in the Chesapeake Bay near Thimble Shoals Light. Also included was the 365 Navy contact mines laid on January 17, 1942, between the tip of Cape Henry and the north edge of the main channel.[5]

The controlled field was kept "safe" when shipping was entering or leaving, but was put on "contact" the rest of the time, when any vessel coming in contact with a mine would cause it to detonate. The field was placed in this mode whenever the harbor defense commander required it, usually at night or under conditions of poor visibility.

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[4]Ibid., 59.

[5]Weinert, Defender, 228-29.

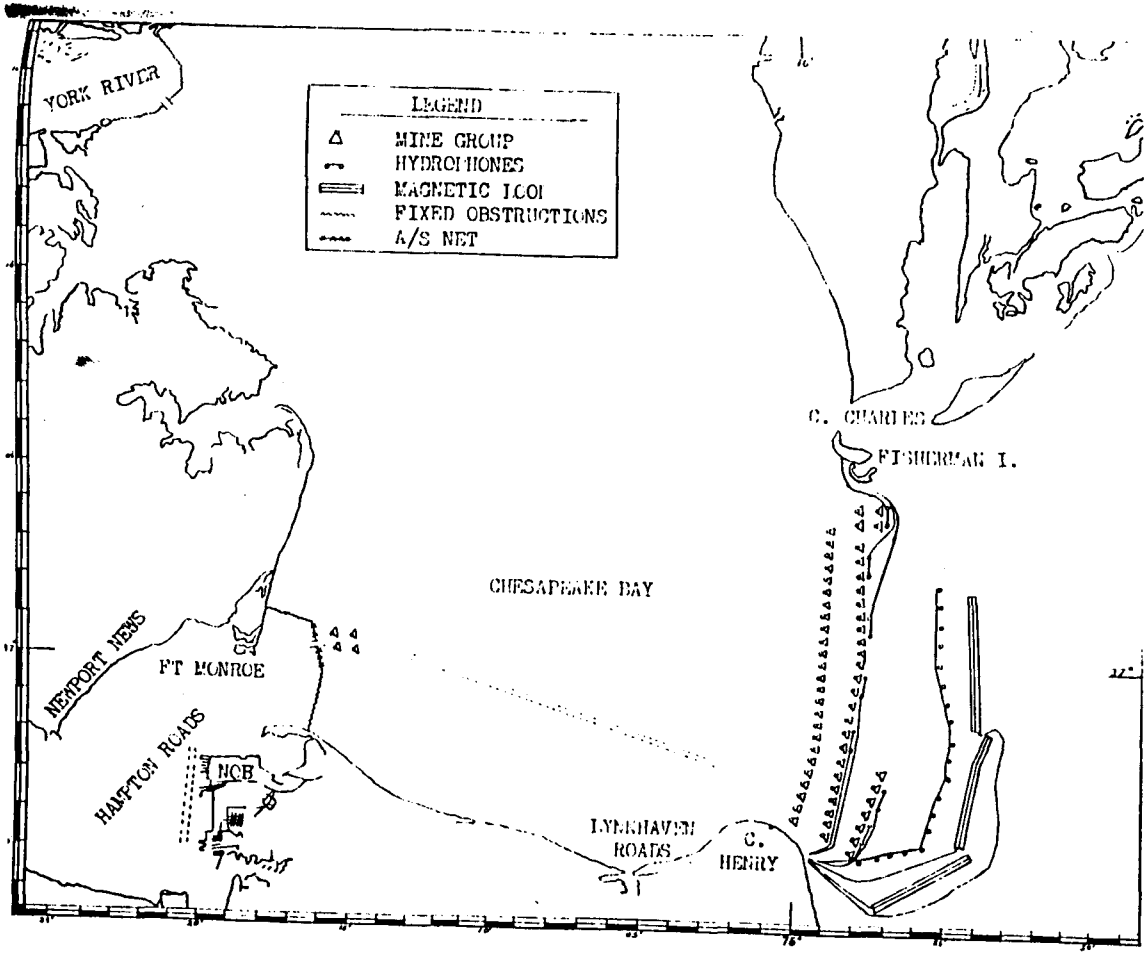

Figure 1. Underwater and Other Fixed Defenses of the Hampton Roads-Chesapeake Bay Area as Finally Installed

Source: Commandant, Fifth Naval District, "History of the Fifth Naval District, 1939-45." Vol. 2, 1946, Guide No. 112, p. 59. Navy Library, Naval Historical Center, Washington, D.C.

The second weapon consisted of Army and Navy hydrophones, underwater listening devices, put in place in summer 1941, and laid to seaward for the surveillance of the Bay entrance at times of limited visibility. The Army had seven hydrophones equally spaced across the entrance of the Bay from Cape Henry to Cape Charles. They were positioned in front of the outer mine field as described above. The Navy then had fourteen hydrophones approximately 5,000 yards east of the Army's outer mine field and hydrophones. Together, the Army and Navy evaluated the incoming signals and responded appropriately.

The third weapon was magnetic loops. Laid in the summer of 1941, they were a set of underwater cables that could detect the magnetic field of a vessel passing overhead. The Navy installed three of these east of the their hydrophones, thus forming the first line of protection for the entrance to the Chesapeake. They roughly paralleled the hydrophones, laid in three sections of roughly equal length stretching from Cape Henry to Cape Charles. Until late 1943, however, only the southern and midsections were in operation. The northern section having not been laid yet, consisted of only a mine field.[6]

The fourth weapon was radar. The HECP had control over two types, surveillance and fire control radar. Surveillance radar permitted observation over all water areas regardless of weather conditions. It was installed on the Navy's patrol aircraft as well as at the Naval Operations Base at Norfolk. The Army's fire

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[6]Commandant, "History," 59.

control radar, similar to the surveillance model, aided in aiming the artillery. It covered areas within reach of Army artillery, mainly the Army's six-inch batteries located at Forts Monroe, John Custis, and Story.[7]

The fifth weapon was navy patrols. The watch officer despatched the patrols from the Little Creek Base. Patrols usually kept on station included the examination vessel, the Inner and Outer Guards, and vessels at Nude North and South, Sold, Jake and Fair. The patrols were augmented, however, when an enemy U-boat was detected. They were expected to function not only as a defensive element, but as an offensive weapon as well, with orders to destroy any enemy vessel found in their waters.

The sixth weapon was naval aircraft, used by HECP as supplementary patrols to investigate incidents and to help identify any foreign shipping or in case of unrecognizable signals.

All of the above weapons enabled HECP to protect the Bay and merchant marine traffic in the region. It gathered and distributed intelligence data, operated and maintained military communication channels, controlled and deployed mines, and operated the port. Furthermore, it was responsible for warning ships that were dangerously off course and giving protection to convoys.[8]

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[7]Weinert, Defender, 229.

[8]Ibid., 235.

HECP proved to be invaluable in the fight against the U-boats, and it was an important organization in the larger picture of the Battle of the Atlantic. Proving that the Army and Navy could coordinate their actions and their forces, HECP operations saved ships and saved lives.

CHAPTER V

THE GREAT ADVANTAGE

Towards the end of World War I, German submarines had laid some 57 mines along the Atlantic coast from Fire Island in the north down to Wimble Shoals in the south. They had been laid in groups of six or seven off of the entrances to some of America's most vital ports and harbors. One field at Cape Henlopen threatened merchant traffic using the Delaware Bay, while another, placed a few miles to the south and west of Cape Charles, Virginia, endangered the entrance to the Chesapeake. Seven ships, including a light cruiser and a battleship, were sunk or damaged by the mines. What the Germans had done with such success in the First World War, some twenty-five years ago, they might do again. It was against such a background that Admiral Andrews, Commander of the Eastern Sea Frontier, issued his directive of 13 June 1942 stating that "every possible effort should be made to sweep the approaches to our principal harbors and to make exploratory sweeps of our coastal sea lanes."[1]

The great advantage of the mine as compared with other weapons is that it does not demand the presence of its intended victim at the time of the offensive action. This advantage, however, is closely related to its greatest disadvantage; countermeasures taken after sowing may make it ineffective. The

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[1]Freeman, War Diary, 336.

great advantage of mine warfare was soon shockingly demonstrated in the waters off of the Chesapeake Bay. Its disadvantage would not be exploited by the Navy until months later.

The late winter and early spring of 1942 had been good months for the U-boats in American waters. Operating off open anchorages and undefended harbors, they enjoyed undreamed of successes, sinking 2.5 million tons in six and a half months. Targets were so plentiful that it was more often a lack of torpedoes than shortage of fuel which forced them to return home. Fortunately, as the U-boats' aim became deadlier through the months, so too did the attacks by the United States Navy. During the month of May, there were only two attacks on merchant ships in the waters of the Fifth Naval District--and only one of the vessels sank. The enemy apparently decided at this point it must change its tactics. It turned to a new weapon not yet used--the mine.[2]

In the spring of 1942 the only vessels to use the swept channel leading into the Chesapeake Bay or even to know of its location were naval vessels. The location of the channel was too secret to disseminate to all the vessels operating in the district. Even with the initiation of the coastal convoy system in May, information about the swept channels was not furnished to the commodores of the convoys. This policy changed after the tragic events of 15, 16, and 17 June.[3]

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[2]Fifth Naval District, "War Record," 259.

[3]Commandant, "History," 111.

In the early hours 15 June, the commodore of Convoy KN-109, in the flagship SS Empire Sapphire, reported that his convoy, with its six protecting escort vessels, would reach the entrance to the Chesapeake Bay around 1700. At 1650, the 13 ships with their six escort vessels reached Cape Henry. No local patrol craft were in the vicinity, but on the horizon near the Cape Henry sea buoy, two pilot ships were visible. As the commodore in the Empire Sapphire brought his convoy closer to the swept channel, one of the pilot ships headed towards Lynnhaven Roads. The other lay still in the water. Meanwhile, along Virginia Beach, six miles away, a summer crowd of bathers, brightly colored against the shoreline, had gathered to watch the parade of ships as they entered the Bay.[4]

Fifteen hundred yards on the starboard beam of the Empire Sapphire lay whistle buoy 2CB, painted red and marked in white with the characters 2CB. In times of peace, the buoy marked the entrance to the Chesapeake Bay. Since the war began it stood at one corner of the swept channel that ran from the sea through our own mine fields into the waters surrounding the Hampton Roads region. The northern end of the channel was Point "XM" at the position of the old Chesapeake light ship. From there the channel ran southwest to Buoy 2CB, where it turned sharply into the Bay at a 90 degree angle.[5]

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[4]Freeman, War Diary, 336.

[5]Ibid., 337.

The commodore of Convoy KN-109 found himself in a fix. He was without a bay pilot and without information as to when or where one might be expected. Ahead of him, he knew, lay the American mine field. Behind him were ships of the convoy strung out single file. They would be an easy target for any submarine in the area. At approximately 1658, the Commodore slowed to five knots, then steered his vessel toward the pilot boat that had remained stationary. The convoy proceeded with caution towards Cape Henry.[6]

Around 1702 the quiet of the late summer afternoon evening was shattered. The fifth vessel in the 13-ship column, the 11,615 ton American tanker SS Robert C. Tuttle, laden with 142,700 barrels of crude oil, hit a mine with her bow. She was 900 yards west of Buoy 2CB. Looking astern from his flagship, the Empire Sapphire, the Commodore of the convoy witnessed the Tuttle list sharply to starboard and fell out of column. The ship's bow went down in the 54 foot deep water. One crewman was killed. The other 46 crewmen were able to escape the ship, which had become a blazing wreck. Although severely damaged, the vessel was later salvaged along with 72,000 barrels of its oil.[7]

The explosion caused confusion among the other ships in the convoy. Some captains believed a U-boat had torpedoed the

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[6]Ibid.

[7]Fifth Naval District, "War Record," 263; Navy Department, Office of the Chief of Naval Operations, "Summary of Statement of Survivors of the SS Robert C. Tuttle," n.d., Operational Archives, Naval Historical Center, Washington, D.C.

Tuttle. Eventually the commodore was able to close up the formation. The vessels, in rotation, then proceeded to pick up Bay pilots for their journey up the Chesapeake. There was one exception, the Esso Augusta, a tanker of 11,237 tons laden with 119,000 barrels of diesel oil. After the explosion in the Tuttle, the Augusta broke out of column and hoisted signals for zigzag. For one-half hour it maneuvered in the vicinity of Buoy 2CB, trying to find a place where it could enter the Chesapeake Bay without encountering the American mine field or being attacked by the supposed enemy submarine. It reentered the convoy column in seventh place. At 1733, however, a mine exploded on her starboard quarter, one-half mile due south of Buoy 2CB.[8]

Soon after the Tuttle's explosion, escort vessels assisted by Navy blimps began to hunt for German submarines. Thousands of summer tourists on the beach witnessed the action. (The papers subsequently published headlines reading "Battle of Atlantic Pushes Virginia's Shores"[9] and "Sub Hits Two Merchantmen off the Coast."[10]

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[8]Fifth Naval District, "War Record," 264; Navy Department, "Summary of Statements by Survivors of the MV Esso Augusta," n.d., Operational Archives, Naval Historical Center, Washington, D.C.

[9]Frank Sullivan, "Battle of Atlantic Pushes Virginia's Shores--Two Merchant Ships Torpedoed Before Eyes of Thousands Who Line Resort Front to See Grim War Drama," The Virginian-Pilot, 17 June 1942.

[10]Irene Pearson, "Sub Hits Two Merchantmen Off the Coast, 46 Aboard Sunk Ship Reach Base--One Crewman is Killed," The Portsmouth Star, 17 June 1942.

Approximately two hours after the first explosion had rocked the Robert C. Tuttle, the British Armed Trawler, HMS Kingston Ceylonite, of 500 tons, which was on its way up the coast with the SS Delisle, which was being towed by the tug Warbler. The British trawler struck a mine. The first blast was quickly followed by a second, most likely an explosion of the ship's magazine. The fierce explosions, on the starboard side amidships, blasted the vessel into two tattered sections just forward of the bridge. She sank in 2 minutes, 2 miles southwest of Buoy 2CB, with only 15 of the 32-man crew surviving.[11]

Believing that an enemy submarine was the culprit, navy ships immediately began the hunt. The crew of the destroyer Bainbridge, one of the escort vessels with the convoy, thought that it had obtained contact with a U-boat. Its sonar had probably picked up a wreck on the bottom. In the excitement of the moment, however, it laid a pattern of eight depth charges set for 50 feet. Minutes later it obtained a second contact and again attacked with eight depth charges. Their hasty attack, however, made it clear that no submarine was below. There were not eight explosions, but nine. The Bainbridge had unwittingly exploded an enemy mine.[12]

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[11]Fifth Naval District, "War Record," 265-266; Navy Department, "Summary of Statements by Survivors of HMS Kingston Ceylonite." n.d., Operational Archives, Naval Historical Center, Washington, D.C.

[12]Ibid.

The Chesapeake Bay entrance was immediately closed to all merchant traffic. The Commander of the Inshore Patrol, Fifth Naval District, ordered sweeping operations to commence at daylight on 16 June. Six mine sweepers from the Naval Mine Warfare School, Yorktown, along with three sweepers from the Service Squadron, Atlantic Fleet, joined the sweepers from the Local Defense Force at Little Creek, Virginia. On the evening of 15 June, a conference at the Section Base decided upon methods of sweeping and marked out the boundaries of the area to be swept. First, sweepers would thoroughly search the regular swept channel for any mines. Secondly, they would sweep an area roughly 10 miles by 7 miles with buoy 2CB at its center. This entire area was then divided into three sections labeled A,B, and C.[13]

On 16 June sweepers carried out a complete sweep of the regular buoyed channel from Point "A" all the way to Point "XM." They found and destroyed five enemy mines in the vicinity of Buoy 2CB. (See Figure 2)[14]

Early the next morning (17 June), Convoy KS-511 left Hampton Roads bound for Key West. It had been held back for twenty-four hours to allow the sweeping to be completed. Its convoy commodore had been given routing instructions that would carry him safely through the swept channel. It was the first merchant convoy to depart the Virginia Capes via the swept channel. Unfortunately, after rounding Buoy 2CB (Point "B" of the swept

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[13]Freeman, War Diary, 339.

[14]Fifth Naval District, "War Record," 259.

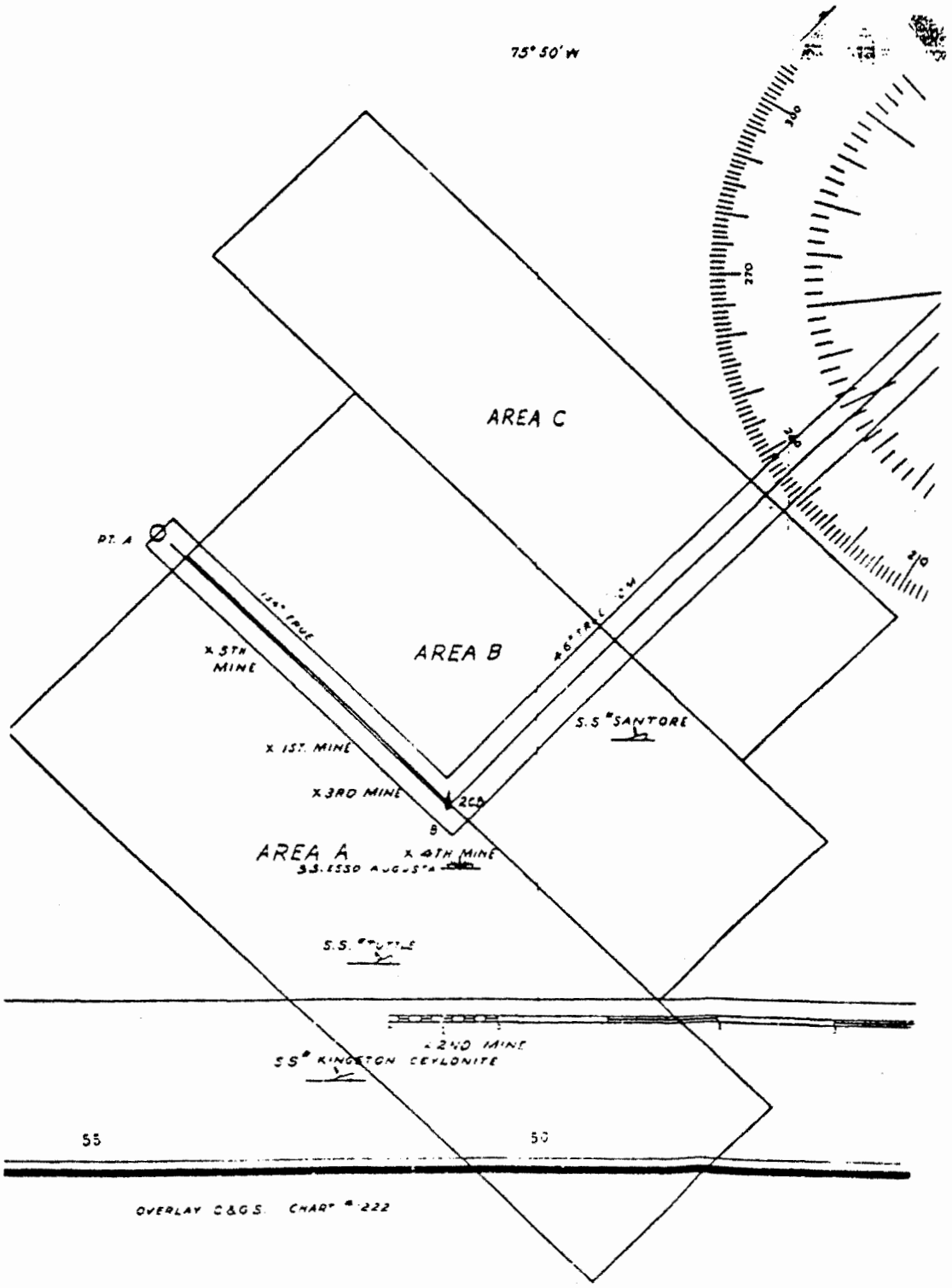

Figure 2. Areas Swept on 16 June 1942.
Source: Commander Defense Area Group. "Report of Mine Sweeping Operations, 16 June 1942." Fifth Naval District Inshore Patrol Section Base. Confidential Report to Commander Eastern Sea Frontier, 9 July 1942.

channel), the ore carrier SS Santore struck a mine. It was tenth in the single column convoy. A vessel of 7,117 tons and carrying a cargo of 11,095 tons of coal, it had swung too wide. A mine exploded amidships on the port side. The vessel was one and three-fourths miles bearing 50 degrees true from Buoy 2CB. It immediately began to sink. The captain gave the order to abandon ship, which capsized swiftly and slowly sank beneath the waves. The Navy considered salvaging it because the water was only 54 feet deep where it went down. But the idea was given up. Buoys with a red light were put in place over the hulk as a warning to the other ships.[15] This position was only one-half mile south of the swept channel from Point "B" to Point "C," and was in the area swept by the mine sweepers the previous day.[16]

The Germans had planted a total of fifteen mines in the vicinity of Buoy 2CB. (See figure 3) A total of eleven were either swept, struck a ship, or were otherwise destroyed. Therefore, four must have drifted, or "walked," as it was referred to by the Navy, out of the channel and into the Atlantic Ocean. In a period of less than 48 hours, this mine field had caused the disruption of coastal shipping. Many men and vessels had to be devoted to sweeping operations. Two ships had been lost and two more severely damaged. From the enemy's point of view, this had been an inexpensive and highly successful operation.

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[15]Commandant, "History," 273-76.

[16]Commandant, "History," 602-03.

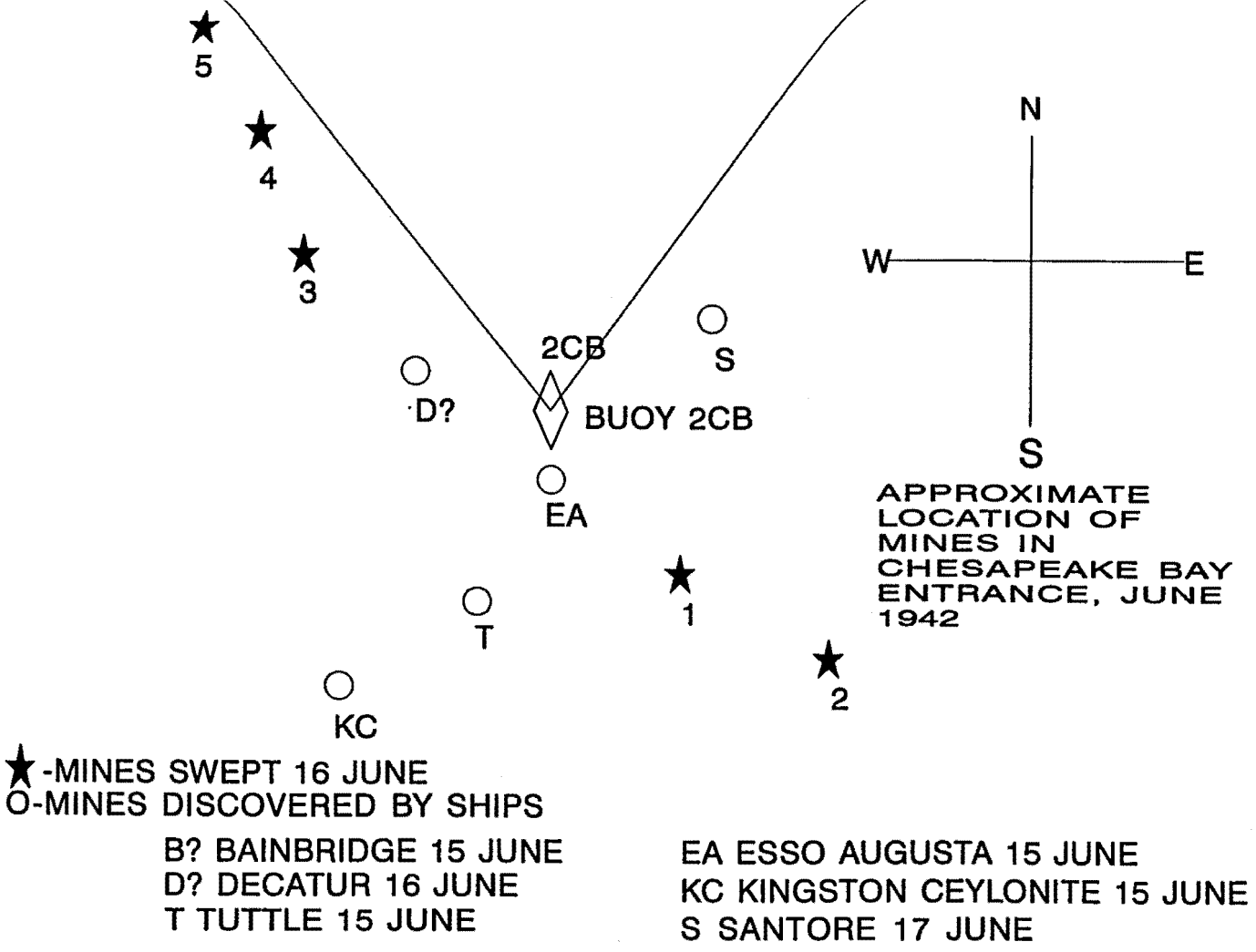

Figure 3. Approximate Location of Mines in Chesapeake Bay Entrance, June 1942
Source: Commandant, Fifth Naval District, "History of the Fifth Naval District, 1939-45." Vol. 2, 1946, Guide No. 112, no page number. Navy Library, Naval Historical Center, Washington, D.C.

Still later, in the middle of September, more mines were found in the same area. (See figure 4) On 12 September, the YMS 55 detonated a mine at 1000 yards, bearing 43 degrees true from Buoy 2CB. On 13 September, three more mines were found and exploded in the following locations: at 3600 yards bearing 311 degrees true from Buoy 2CB; at 6000 yards bearing 55 degrees; and at 7500 yards bearing 59 degrees. Several days later, yet again three were destroyed at 4800 yards bearing 9 degrees true; at 3000 yards bearing 24 degrees true; and finally at 4000 yards bearing 15 degrees true from Buoy 2CB.[17]

A study of the periods just preceding the mid-June explosions and those in September reveals striking similarities. In both instances, the Plot Room of the District Intelligence Office suspected an enemy submarine in the area. Also, in both cases, a lull in submarine activity occurred. Two weeks after the Plot Room lost track of the U-boats, enemy mines were found in the area around Buoy 2CB. Also both periods were at the time of a new moon when nights were darkest and visibility lowest.[18]

In September, certain unidentifiable green flares were observed just outside of the buoyed channel off Cape Henry on 1, 2, 8, and 13 September. These flares had probably been fired by an enemy U-boat to draw patrol vessels away from the swept channel and thus enabling it to enter the area and lay mines.

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[17]Fifth Naval District, "War Record," 260-61.

[18]Ibid.

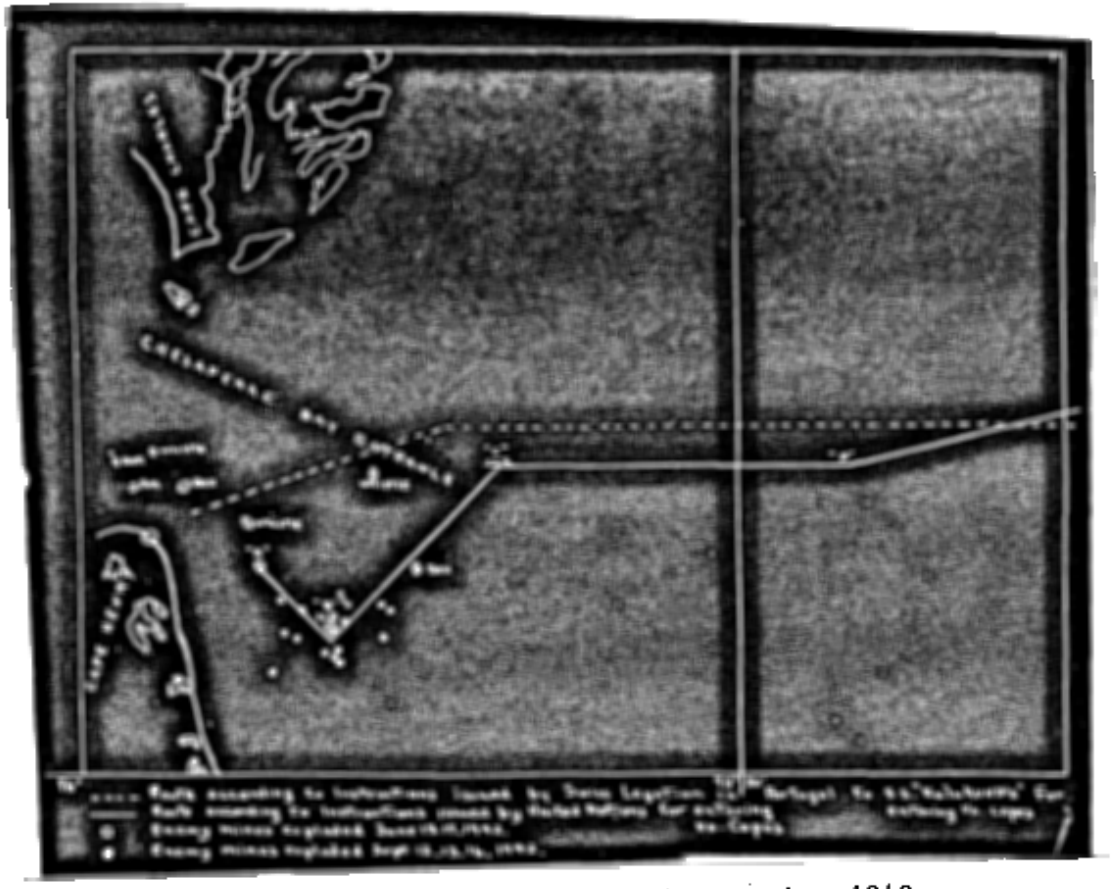

Figure 4. Mines Found and Exploded in June and September 1942.
Source: Fifth Naval District, "War Record of the Fifth Naval District, 1942." 1943, Guide No. 129, p. 262. Operational Archives, Naval Historical Center, Washington, D.C.

The Fifth Naval District also suspected enemy minelaying activity in the area surrounding Lookout Bight, where the periscope of a submarine was reported on 27 September. A submarine had laid mines in the harbor at Charleston, South Carolina, and was tracked northward into the waters of the Fifth Naval District. After a few days in the vicinity of Lookout Bight, it was reported returning eastward without having laid any mines.[19] Careful surveillance by the Fifth Naval District had paid off.

The enemy attempted to repeat the successes of June, but the United States Navy had learned from the tragedy of that month. From that time not a single merchantman would be lost to mines in the waters of the Fifth Naval District.

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[19]Ibid.

CHAPTER VI

A GERMAN U-BOAT MISSION TO MINE THE VIRGINIA CAPES

As Tidewater residents went to bed the night of 12 June 1942, war dominated their thoughts and dreams, but a war presumed far from the shores of Virginia Beach. Battle reports from the clash at Midway gave hope that the tide was now turning in the Pacific even as the Japanese commenced their attack on the remote Aleutian Islands; Germany was planning to fight on two fronts in the Soviet Union, a year after its *blitzkrieg* invasion; and executions continued throughout Czechoslovakia in reprisal for the assassination of Reinhard Heydrich.[1] But that night, the war would come home to the residents of the Hampton Roads region, as a German U-boat secretly laid mines in the waters nearby that would cause the destruction of 15, 16 and 17 June.

One month earlier, on 19 May 1942, the U-701 or "U-Degen," named after the commanding officer Horst Degen, as was common in the submarine arm, had left Lorient, France, for the east coast of the United States.[2] There it was to carry out a very special order: to lay mines in the entrance of the Chesapeake Bay, the doorstep of the Norfolk naval base and of the Newport News

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[1]Ed Offley, "Chesapeake Bay Mined--War Came Close to Home," The Norfolk Virginian Pilot and The Ledger Star, 8 July 1982, A1.

[2]Headquarters, Fifth Naval District. "Prisoner-of-War Information Obtained from Seven Male German Prisoners-of-War Captured July 9, 1942." 14 July 1942, p. 2. Operational Archives, Naval Historical Center, Washington D.C.

merchant port. Documents surrendered after V-E Day revealed that Captain Degen, was the one responsible for mining the Virginia Capes.[3]

Degen was 29 years old at the time of the mission. He belonged to the naval academy class of 1933, in company with some of Germany's most successful U-boat commanders. Prior to the outbreak of World War II, Degen had served aboard destroyers. When hostilities began he participated in the Norwegian campaign aboard the Hans Lody. His ship was in company with the Scharnhorst when she sank the HMS Glorious on 8 June 1940. Shortly thereafter, Degen transferred to the U-boat arm. He served aboard the U-552 under Erich Topp, one of Germany's most successful U-boat commanders at the time. Topp, it seemed, had a fatalistic view about U-boat warfare: "Either you ar lucky or you aren't. Its no good being overcautious if you want to be successful."[4] Degen further reported that Topp "taught me all that I know about U-boat warfare."[5] The experience with Topp produced in Degen a daring and recklessness which were common attributes of successful U-boat commanders. Topp's method was to retain the offensive and take little evasive action.

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[3]Commandant, "History of the Fifth Naval District, 1939-45." vol. 2, 1946, Guide no. 112, p. 227. Navy Library, Naval Historical Center, Washington D.C.

[4]Navy Department, Office of Naval Operations, "Report on the Interrogation of Survivors of U-701 Sunk by U.S. Army Attack Bomber Number 9-29-322, Unit 296 B.S. on July 7, 1942." n.d. p. 431. Operational Archives, Naval Historical Center, Washington, D.C.

[5]Ibid., 432.

Following Degen's tutelage under Topp, he was given command of his own U-boat. The U-701 was one of many Type VIIC submarines that would be built throughout the course of the war. The Type VII was a small boat by American standards, displacing 769 tons surfaced and 871 tons submerged, and measuring 66.5 from stern to stern. Its hull was oval, 6.20 meters high and 4.74 meters wide. Its pressure hull allowed it to dive to 150 meters and beyond. It could survive any depth charge explosions except direct hits. It had a crew of forty-four men, including four officers. The Type VII was a quick diver; with a good crew it could slide beneath the surface in only 25 seconds.[6]

Two powerful diesel engines producing between 2,800 and 3,200 horsepower ran the Type VII. Its top surface speed was 17.6 knots. Electronic motors for underwater propulsion produced 750 horsepower, which allowed for a submerged speed of slightly over seven knots. Range on the surface depended upon speed, either 3,250 miles at seventeen knots or 8,500 miles at ten knots. Submerged, however, it was slow and had little stamina. The Type VII could either travel 130 miles at two knots or 60 miles at four knots.[7]

The arsenal was varied. A Type VII carried fourteen 21-inch torpedoes, fired from either four tubes in the bow or one in the stern. The U-boat carried twelve of the electric torpedoes and two of the air compressed torpedoes. In addition, a Type VII

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[6]Bagnasco, Submarines of World War II, 65.

[7]Ibid.

also carried an 8.8 cm deck gun, which was used for the shelling of ships, and a 2 cm anti-aircraft gun for protection against sub-hunting aircraft.[8]

The U-701 was commissioned on 16 July 1941 and placed in the charge of Captain Degen of the Third U-boat Flotilla. Degen undertook two unproductive war cruises in the U-701 in the North Sea before the Virginia assignment. In early May 1942, Degen was summoned to Admiral Doenitz's headquarters in Lorient where Degen was informed of plans to land German agents on American soil. The U-701 was to take such a team of agents to Ponte Vedra beach, near Jacksonville, Florida. The U-701 was laid up in the ship yards at Brest, however, and was unable to meet the deadline for the operation, which was timed for the night of 13 June, when there would be a new moon and minimum light. Instead, Doenitz selected the U-701 to close off the shipping lanes at the mouth of the Chesapeake Bay with mines.[9]

Leaving Lorient, France, on 20 May 1942, Captain Degen made a dash across the Bay of Biscay in order to elude British aircraft or ships. Degen, in fact, had been given orders to avoid contact with all vessels to insure that he delivered the mines to the doorstep of Uncle Sam's very own house. In the five

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[8]Ibid., 144.

[9]Offley, 8 July 1982.

torpedo tubes lay fifteen magnetic-ground mines, three in each tube, the diameter of each roughly that of a torpedo.[10]

Degen pushed westward and encountered little surface traffic; the only vessels the crew of the U-701 observed were a port tug, a fishing vessel bound for Newfoundland and the neutral Swedish liner Gripsholm, which was in the service of the International Red Cross. Degen recalled the passage across the Atlantic in his memoirs:

> Day by day we came nearer to the American coast, we went slow but steady without any excitement, the spirit on board was good although one would think that it was boring. The watches on the bridge and in the engine-rooms went on regularly, the crew had good food and good entertainment by records being played in the wireless-room over loudspeakers throughout the whole ship, and when we were approaching the American coast there was also the United State's radio stations giving us the latest news and musical programs not knowing whom they were entertaining.[11]

The U-Degen arrived off Virginia's shores during the day of 11 June. Degen had received orders to get as close to the Chesapeake Bay entrance as possible and then lie there. His officers were then to plot the American minefield's location by monitoring the traffic routes of the incoming and outgoing vessels. If the U-boat proceeded with this plan, the U-701 would have to lie on the bottom at a depth of approximately 36-feet. The threat of aerial reconnaissance and the pure chance of being discovered by a passing vessel prompted Degen and the officers to

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[10]Horst Degen. Letter from Luxembourg to Mr. I.M. Punnet and Mr. Anthony Hancox in Birmingham, England, 14 November 1965. 3.

[11]Ibid., 4.

disregard their orders, and lay mines without locating the American minefields beforehand, a very risky venture. Degen explained, "36 feet of depth is no proposition for a submarine that had just crossed the Atlantic!! One could as well have put her (U-701) in an aquarium for easily catching her."[12]

Degen held a day-long conference with his officers: Konrad Junker, the executive officer; Karl Heinrich Bahr, the engineer; Gunter Kunert, the navigator; and the junior watch officers Bazies and Lange. After studying charts of the Bay, they concluded that there was only one way into it: between Cape Henry and Cape Charles. The charts showed a bank coming down from Cape Charles. Incoming ships had to round the shallows at the southern tip and enter the Bay in a single file between Cape Henry and the bank on a northern course. Degen and his officers decided that this would be the best place to lay their mines.[13]

They agreed to lay the mines at night while moving swiftly on the surface. Laying mines was simple for the U-701. The five torpedo tubes were to be filled with water, and then the outer torpedo doors were opened. Each mine was kept in place by a special trigger, which withdrew the moment it was to be released. The boat released mines at set intervals as it moved, providing an equal distance between the mines. They lay inactive for 60 hours before an internal chronometer armed them. It ensured that the mine-laying vessel would be well clear of the area and not be

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[12]Ibid., 5.

[13]Offley, 8 July, 1.

endangered by its own "eggs," when they became active. Any ship that passed over the active mine would discharge it. No direct contact was required as the metal of the ships hull tripped a magnetic sensor in the mine; the explosion was timed so that it would occur under the keel and cause maximum damage.

At nightfall on 12 June 1942, the U-701 with its deadly cargo crept in over the Outer Continental Shelf toward the Virginia Beach shoreline. Degen recalled,

> On port we could see the dark shadows of dunes, lights here and there and as our course brought us by closer to the very beach below Cape Henry it was a breathtaking adventure to see even cars and persons and lighted houses.[14]

To the amazement of the crew it appeared that their target was clearly illuminated and undefended. Captain Degen and the U-701 proceeded toward shore using the lighthouses, which were lit. They entered the mouth of the Chesapeake Bay and reached Thimble Shoals. There they laid their lethal minefield. (See figure 5.)

The operation was uneventful until an armed American trawler appeared in the channel. Degen wrote in his memoirs the following, ". . . things began to happen."[15] The trawler appeared right in the middle of the shipping lane running without lights, and it was cutting a path across the bow of the U-boat from port to starboard.

Discovery of the U-701 by the patrol boat would mean either destruction, or even worse, capture. Degen had no choice but to

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[14]Degen, Letter, 8.

[15]Ibid.

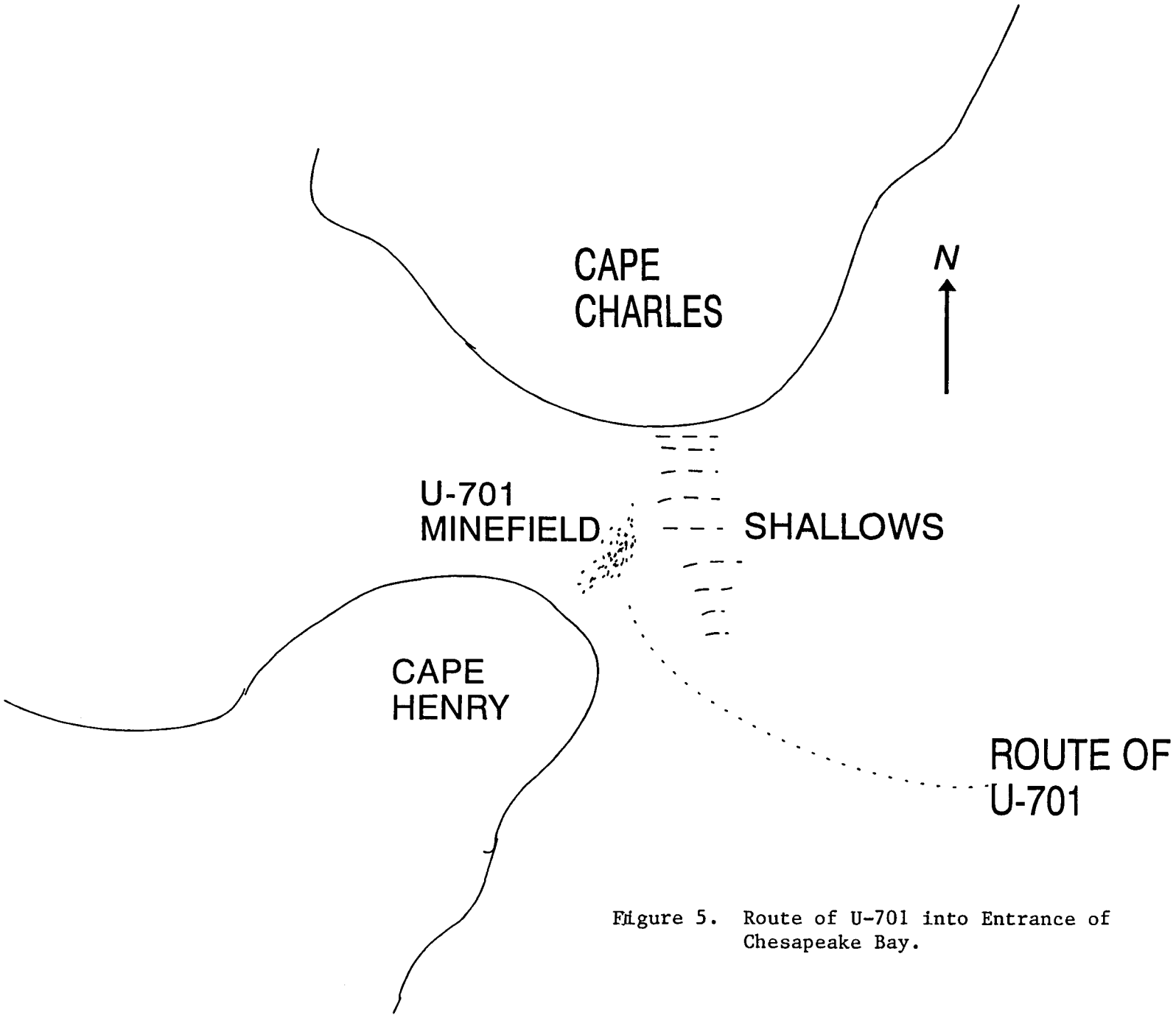

Figure 5. Route of U-701 into Entrance of Chesapeake Bay.

continue with the mission and hope that his boat would not be discovered. The U-701 crept on. A turn would have shown the profile of the U-boat to the patrol vessel. The two vessels approached each other at right angles then diverged. The patrol ship continued on its route toward Cape Charles. The Cape Henry lighthouse neared on the port bow of the U-701, then passed slowly on the port side. When the lighthouse reached a predetermined point, Degen gave the order to begin the mine-laying. Zig-zagging back and forth, the U-701 expelled one mine each 60 seconds into the dark water of the Bay.[16]

At the halfway mark, the crew of the U-701 observed the same trawler returning on the track that it had taken previously across the Bay entrance. The crew had to shut down the diesel engines, choking off their "blub, blub, blub" sound. The U-701 lay quiet in the water until the "doorkeeper of the Chesapeake had reached the other side of its assigned route."[17] The mining operation began anew, but instead of running on its diesel engines, the U-701 operated on its electric batteries, guaranteeing silence as it finished its secretive mission.[18] Degen and the U-701 proceeded to sneak in behind the trawler's wake and followed it while they finished the dispersion of mines. By 0200 the job was complete. Degen recalled in his memoirs, "We had a feeling that the mines were laid just on the right position

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[16]Ibid, 9.

[17]Ibid.

[18]Ibid.

since the patrol boat had shown us where she was guarding and which way we should not trespass."[19]

Less than an hour had passed since Degen and his gallant crew had entered the shipping channel. The U-701 had avoided detection and its deadly weapons now lay waiting for their first victim, the timers silently marking off sixty hours before activating their magnetic and acoustic detonators. Deployment had been completed in the early hours of 13 June. Therefore, the mines armed themselves at approximately 1400 on 15 June 1942. The mines were active for little more than three hours before they drew first blood. As described in the previous chapter, a convoy entering the Hampton Roads region from Key West, Florida, on 15 June entered the minefield. Ships hit mines, and the Bay had to be closed for two days. The detonations caused a furor. Thousands of summer vacationers watched from the shores of Virginia Beach as the convoy struggled across the minefield. Shock waves from the explosions rattled windows on shore.[20]

The shock waves not only rattled windows, but also roused the Army and Navy into action. The former immediately stepped up its defensive role on the mid-Atlantic seaboard by transferring

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[19]Degen, Letter, 10.

[20]Offley, 8 July, A4. The U-701, however, was not alone in its assault at the shoreline of the United States. Mining operations by other German U-boats in the summer of 1942 also occurred at Boston, the Delaware Bay approaches, Charleston harbor, Jacksonville and the Mississippi River passes. By and large, however, the mining operations were a failure. The mines that were dropped in the other harbors sank no ships and did no damage to any vessel. Degen's penetration of the mouth of the Chesapeake was the only mission that claimed any victims.

the 396th Medium Bombardment Squadron in California to the Marine Corps air station at Cherry Point, North Carolina.

The 396th, with thirteen A-29 Bombers, flew six sorties a day: three southbound and three northbound flights out along the North Carolina coast, covering the shipping routes from Cape Hatteras south to Charleston, South Carolina. The first patrols departed an hour before sunrise and the last patrol returned an hour after sunset, covering the 15-hour span of summer daylight.

Among the pilots of the 396th was Harry Kane, who arrived with his crew for temporary duty at Cherry Point, following the cross-country flight from California. Kane and his crew quickly adapted to the routine of his new east coast duty. But the flying was tedious. Kane and his crew flew for hours each day and seldom saw any signs of life at sea. On 7 July 1942, however, Kane and his bomber attacked and sank the "U-Degen."[21]

In the three weeks following the mining of the Chesapeake Bay, the U-701 had had mixed results in its torpedo attacks against shipping traffic on the North Carolina coast. Following the mining operation, it had been ordered to look for targets for its torpedoes in an area which extended from 15 miles south of Cape Lookout to Chesapeake Light. It entered the broad curve of Onslow Bay, North Carolina. Degen hoped he would come upon ships anchored in the shallows, but all he found were four rusting hulks, the trophies of the previous U-boat commanders who had

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[21]Ibid.

hunted in this region. Degen and the U-701 then proceeded out into deeper waters and northwards near Cape Hatteras. The U-701 attacked and sunk a Coast Guard patrol craft, the YP-389, on the night of 19 June. It had little luck during the next eight days, but on 27 June, Degen was able to outsmart two navy destroyer escorts to torpedo the tanker SS British Freedom as it steamed south.[22]

The following day, 28 June, the U-701 sank the tanker SS William Rockefeller, despite an escort of two Coast Guard Cutters and three aircraft. So far on its third war cruise, the boat had sunk four ships and damaged three others. Little did the crew know that their tally was complete. For the next ten days, the U-701 wandered fruitlessly in search of another victim.[23]

At dawn on 7 July 1942, the U-701 submerged after yet another night of unsuccessful hunting to hide on the bottom. That same morning, Harry Kane lifted his Army A-29 Bomber from Cherry Point Airfield and set out on what he thought would be another routine mission.[24] Nothing of special interest developed at first. After about four hours of uneventful flight, crew members concluded it would be another boring mission. But before

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[22]Fifth Naval District, "War Diary--Eastern Sea Frontier, Chesapeake Group," n.d., 426. Naval Historical Center, Operational Archives, Washington, D.C.

[23]Ibid.

[24]Office of Naval Operations, 425. The other members of the crew that day consisted of the following: 2nd Lt. Murray, navigator; C. E. Bellamy, Cpl, bombardier; L. P. Flowers, Cpl, radio; and P. L. Broussard, Cpl, engineer.

the last minute of the fourth hour had passed, Lieutenant Kane spotted something on the surface in the distance.

That day, Degen and the crew of the U-701 had been lying on the bottom of the Atlantic. The heat had turned the dank interior of the U-boat into a sauna. The crew was drowsy and lethargic because of the stale air and the submarine's continuous wallowing motions. In the early afternoon, Degen decided to risk being spotted to obtain fresh air. Upon surfacing he posted lookouts to scan the horizons for aircraft. He was standing on the conning tower platform when word came from engineering that the boat was fully ventilated. He had already given the order to dive when his executive officer cried aloud, "Airplane, 200 degrees, coming in from port-aft!!"[25] The U-boat began to submerge, but before the hatch slammed shut, he caught a glimpse of the two-engine Hudson bomber dashing down from the clouds. The U-701 raced for the safety of the deep. As it dove, Degen looked at his executive officer and stated "You saw it too late!" and the officer replied in a hushed tone, "Yes."[26]

It was 1412 by the bomber's clock when Kane spotted the object approximately seven to ten miles off his port wing. Convinced it was a submarine running with decks awash, he immediately dove towards it. He realized that he had only one chance to hit the U-boat, and it was coming up fast. As the A-29

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[25]Degen, Letter, 11.

[26]Ed Offley, "Confrontation in the Atlantic--The Death of U-701." The Norfolk Virginian-Pilot and the Ledger-Star, 9 July 1982, A1.

reached the swirling waves where the U-boat had been just seconds before, he ordered all three 325-pound depth charges dropped. The bombs fell to the water, in train; the first fell 25 feet short, the second 100 feet further on, and the third 50 feet beyond the second. Both the second and third depth charges straddled the U-boat and detonated at fifty-feet below the surface, in effect a direct hit.[27]

Within seconds of the explosion, water began to fill the interior of the U-boat. In 30 seconds, the water level had risen to within a foot of the hatches. Degen ordered abandon ship and wrestled the conning tower hatch open. Immediately, the crewmen in the conning tower were thrust out of the U-boat like a cork out of a champagne bottle. They rode the bubbles to the surface some 200 feet above their heads.[28]

Degen reached the surface alive and conscious. He soon discovered that seventeen others of his crew had escaped. Knowing that the Americans had the position of the sinking, he believed that they would be rescued within hours. He was wrong. Forty-eight hours passed before U-701's survivors were picked up by a coast guard Catalina. Of the original eighteen men, only seven survived, Degen among them. Their part in the war was over. He and his fellows spent the rest of the war in prisoner-of-war camps.

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[27]Office of Naval Operations, 425.

[28]Degen, Letter, 11.

Kane was not sure he had hit his target. He reported the sinking soon after returning to Cherry Point, but to his chagrin found that no one believed his account. Four days later, however, Kane and his crew were ordered to Norfolk Naval Air Station, where, for the first time, they met Captain Degen and the other survivors of the U-701.[29]

Although Captain Degen spoke freely about the ships he had sunk, he remained quiet about his first mission in Fifth Naval District waters. Only after the war did German Admiralty documents reveal Degen's responsibility for the mining of the Hampton Roads area on the night of 12 June 1942.

The sinking of the U-701 all but ended the presence of the enemy in the waters of the Fifth Naval District. Air patrols like these in which Kane took part coupled with all other countermeasures, mainly the convoy system, forced the German Admiralty to seek out other operating areas for its U-boats. Submarines largely disappeared from the waters of the Fifth Naval District. Their offensive had come to an end.

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[29]Commandant, "History," 227.

CHAPTER VII

CONCLUSION

Through the employment of convoys, underwater defenses, and air and sea patrols and new weapons, the waters off of Virginia Beach became an unprofitable and dangerous hunting ground for the German U-boats by the second half of 1942. When the United States became involved in World War II many of these defenses, although planned, had not been put into operation. The result was a staggering, though temporary loss of shipping and lives as the U-boats operated freely with little fear of reprisal. In Operation Drumbeat, historian Michael Gannon referred to this catastrophe as the "Atlantic Pearl Harbor." Gannon criticized the United States Navy for failing to respond adequately to the threat even after the British intelligence had informed us that the U-boats were making their way to the east coast. Some of his charges are justified, but this thesis seeks to put the antisubmarine war in perspective. The raising of such complicated defenses was a large and time-consuming undertaking. Resources were scarce. A process of trial and error had to take place. The damage done by the U-boats was great, but eventually the Navy and other organizations were able to respond effectively, establishing a defensive network that repulsed the German U-boats within months after they appeared off the shores of America. This work has documented the development of this

network off the coasts of Virginia. The concluding chapter will put the efforts of the Fifth Naval District and other agencies of Virginia into the context of the larger war.

The graphs on the following pages summarize the U-boat war off Virginia's coasts. The striped line indicates U-boat activity within the waters of the Fifth Naval District. The solid white line shows attacks on enemy submarines. The graphs illustrate a week by week reporting of this activity for the entire year of 1942. It is apparent that a sharp peak of activity was reached in the third week of January when the first wave of U-boats reached the American coast to begin Operation *Paukenschlag*. In the following month, activity subsided as most U-boats returned to their bases in France. They returned in force in March, inflicting heavy losses on the merchant fleet, especially during the third week, when the hunters claimed thirteen victims. Since few American vessels were available for the patrol and district convoys just beginning, the German marauders operated with impunity. But U-boat successes began to drop significantly in the last days of March as defensive measures took hold. This pattern continued with an increase only occurring in June, when U-701 laid its mines. In July, only three ships were attacked. Indeed, they were the last three vessels to suffer attacks in 1942.[1]

Attacks on the enemy in some respects mirror those of the enemy on shipping. The figures in fact, demonstrate a vigorous

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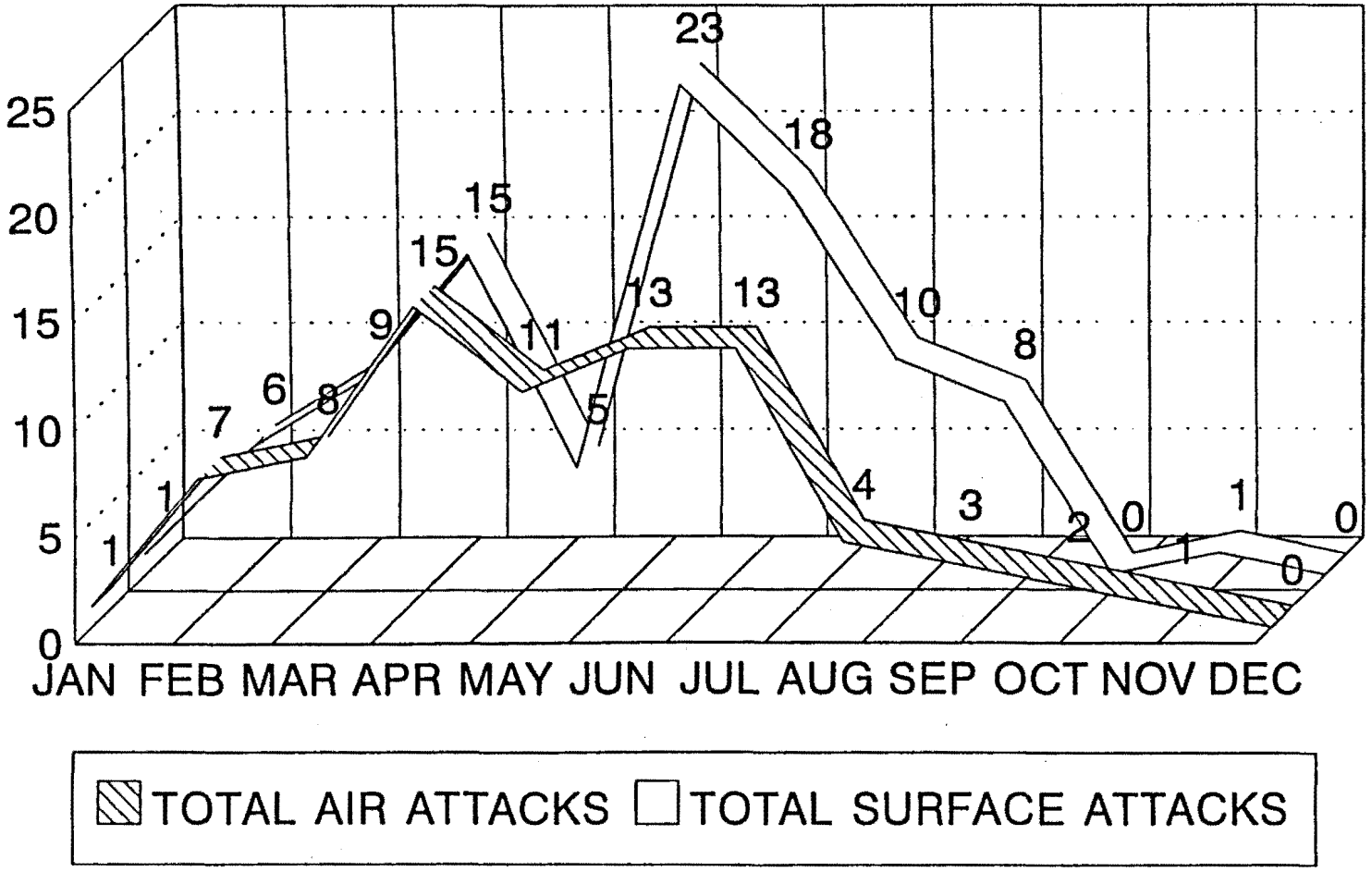
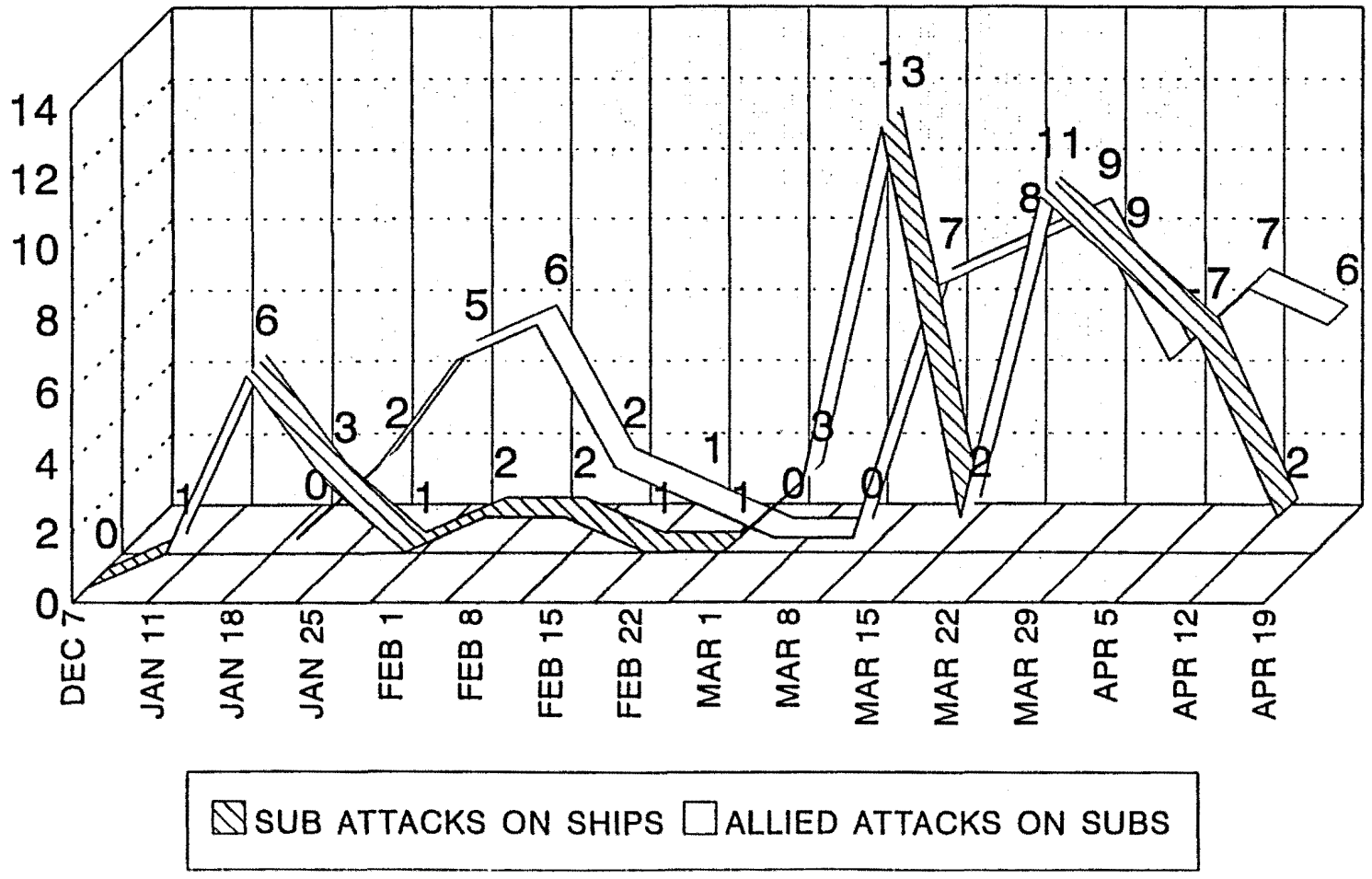
[1]Fifth Naval District, "War Record," 8.

AIR AND SURFACE ATTACKS ON THE ENEMY
FIFTH NAVAL DISTRICT



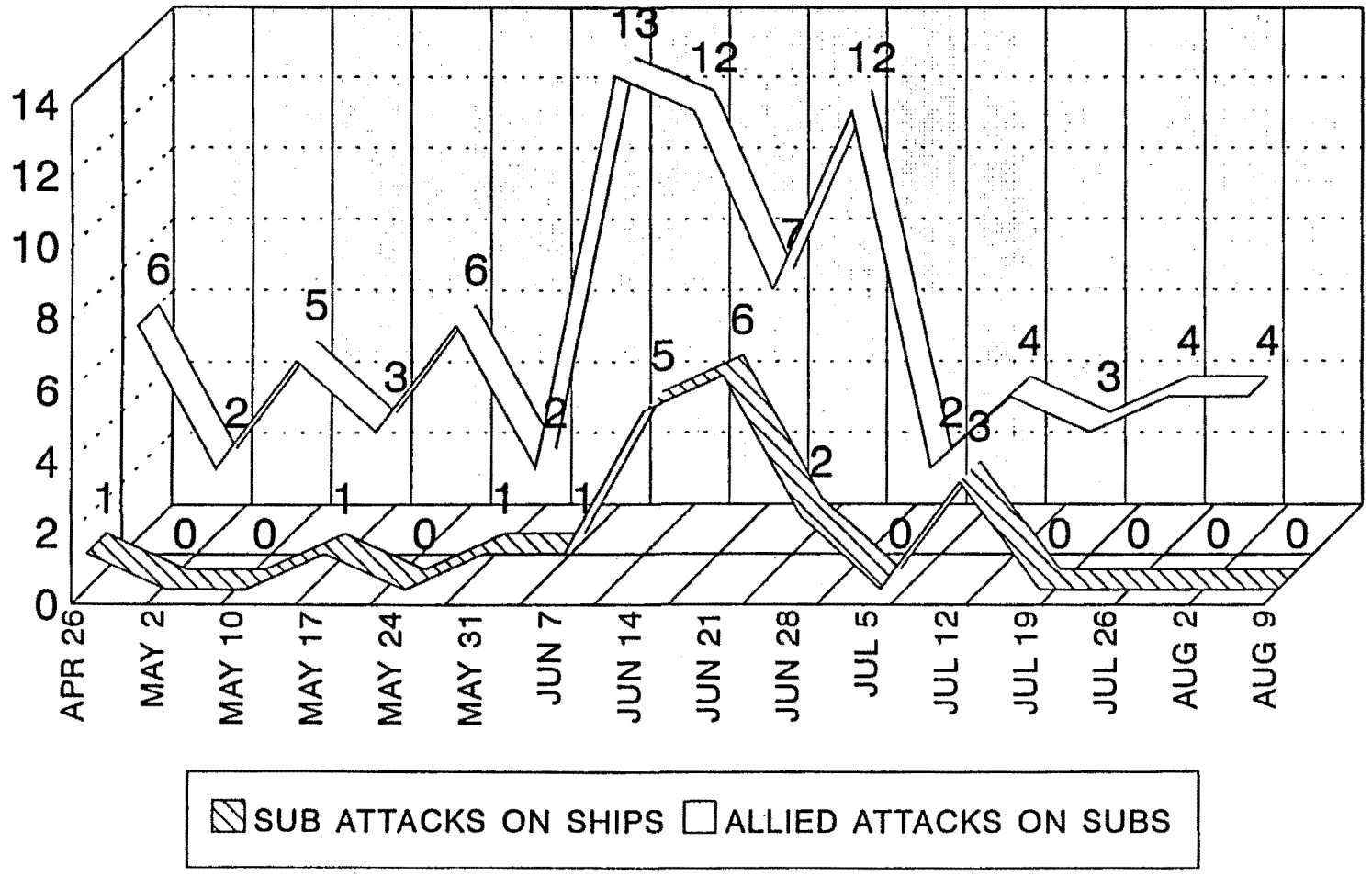
Fifth Naval District, "War Record of the Fifth Naval District, 1942." 1943, Guide No. 129, p. 12. Operational Archives, Naval Historical Center, Washington, D.C.

SUBMARINE ACTIVITY
FIFTH NAVAL DISTRICT
GRAPH A



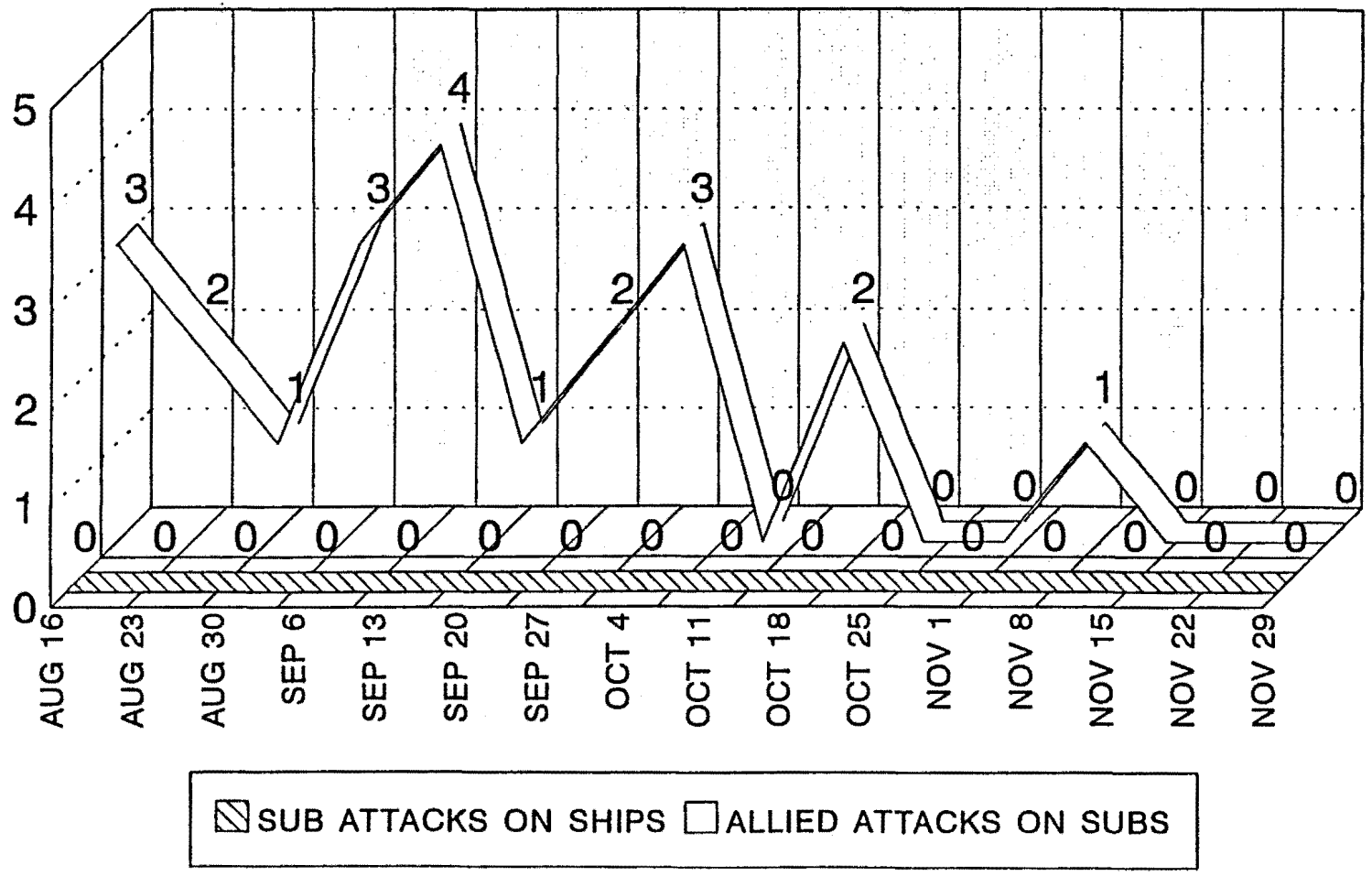
DECEMBER 7, 1941--APRIL 25, 1942

SUBMARINE ACTIVITY
FIFTH NAVAL DISTRICT
GRAPH B



APRIL 26, 1942-- AUGUST 15, 1942

SUBMARINE ACTIVITY
FIFTH NAVAL DISTRICT
GRAPH C



AUGUST 16, 1942--DECEMBER 7, 1942

defensive response to the U-boats. The steady completion of the region's defenses can be observed beginning in April, when the number of American attacks on U-boats exceeded the German ones on the merchant fleet. Attacks on U-boats from April until the end of the year continued to exceed U-boat attacks. In Virginia waters the U-boats had lost the offensive by the summer of 1942 and they would never regain it.[2]

The grand admiral of the underwater fleet, Karl Doenitz, noted in his memoirs the change in the hunting conditions in the middle of 1942:

> U-boat operations off the east coast of America struck a bad patch, from the end of April to the middle of May, in which seas were empty of shipping and successes were meager.[3]

He attributed this decline to the introduction of convoys, which he was right to consider a turning point in the German campaign. With the loss of several key U-boat captains and their crews in July, he decided that the time had come for him to withdraw most of the U-boats from America's shores.[4] A few U-boats continued to hunt off of the coast, but the Battle of the Atlantic was over for the ships that sailed in the waters of the Fifth Naval District. As a result, he began to focus his U-boats on the shipping lanes of the Caribbean. Even there successes began to decline by the end of June with the gradual introduction of a

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[2]Ibid.

[3]Doenitz, Memoirs, 220.

[4]Ibid., 250.

convoy system. Therefore, he was forced to return to mid-Atlantic wolf-pack tactics at the end of 1942.[5]

For the remainder of the war, Allied aircraft covering the mid-Atlantic convoys kept U-boats on the defensive and made attacks on any convoy fraught with risk for the attacker. In every region in which the U-boats hunted, aircraft were a constant threat.[6] Doenitz observed that in conjunction with the convoys along America's coast, air and surface attacks on U-boats continued to increase in the latter part of 1942 and after.[7]

On the eve of the first anniversary of Pearl Harbor, Secretary of the Navy Frank Knox issued a submarine warfare summary for 1942. A full report on the Pearl Harbor raid appeared at the same time and overshadowed it. Buried in the back pages of most papers, it acknowledged the loss of 584 Allied and neutral merchant vessels in the Western Atlantic amounting to close to three million tons. Of this amount, 587,951 tons were lost in the Eastern Sea Frontier. The number of American vessels lost came to over 300.[8]

Doenitz believed that the course of the war could have been dramatically different had Germany been able to produce U-boats in the numbers that he wanted. Luckily for the Allies, Germany

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[5]Ibid., 221-22.

[6]Ibid., 242.

[7]Ibid.

[8]Theodore Taylor, Fire on the Beaches (New York: W.W. Norton and Company Inc., 1958), 222.

fought World War II without sufficient U-boat numbers and it lost the advantage and the offensive in 1942.[9]

Near the close of the war, plans were formed to employ a U-boat armada against America's east coast. This plan died as Germany collapsed and Hitler committed suicide in April 1945. Ironically, Doenitz became the one to call a final end to the U-boat campaign. He became head of government after Hitler's death. On 4 May 1945 he signalled his boats to cease hostilities by issuing the following Order of the Day:

> My U-boat men, six years of U-boat warfare lies behind us. You have fought like lions. A crushing superiority has compressed us into a very narrow area. The continuation of the struggle is impossible from the bases which remain. Unbroken in your warlike courage, you are laying down your arms after a heroic fight which knows no equal. In reverent memory we think of our comrades who have died. Comrades, maintain in the future your U-boat spirit with which you have fought most bravely and unflinching during the long years[10]

In the early hours of 7 May 1945, Doenitz's representatives signed the surrender papers at Rheims. The Allied powers ordered him to signal the capitulation to all submarines at sea. U-boats were to surface, hoist black flags, report in plain language their positions and proceed to designated ports. One by one, the U-boats emerged from the depths, a defeated but proud enemy obeying one final order from their commander. Within a month, a total of 49 U-boats had surrendered at sea, while another 211 were scuttled, mostly in the Baltic, to avoid being captured. Of

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[9]Doenitz, Memoirs, 333.

[10]Cmdr. Richard Compton-Hall, The Underwater War, 1939-1945 (Dorset: Blandford Press, 1982), 105.

the former, seven of them did so in the western Atlantic to the United States Fleet.[11]

The U-boat campaign was finally over. With some assistance from the Italians, Germany's submarines had sunk over 2,500 Allied and neutral merchant ships, totaling 14,687,231 tons. In addition, 158 British and 29 U.S. warships had been sent to the bottom by U-boat attacks. Almost 30,000 men of the British Merchant Marine had perished as well as 5,579 American merchant sailors and officers. The American toll represented a higher ratio of dead in comparison to the total numbers of merchant seamen involved than the ratio of military and naval casualties suffered by armed forces the two nations combined.[12]

Germany's Operation *Paukenschlag* had been silenced in 1942. It was of course only a part of the submarine war. Approximately 820 U-boats participated in the larger Battle of the Atlantic, of which only 39 returned to German harbors unharmed at the end of the war. Furthermore, of the approximately 40,000 German sailors who went to sea in the U-boats, 30,000 perished.[13] These men, sometimes little more than boys, suffered the horror of being depth charged and facing death within a stench-ridden U-boat. Their screams silenced by the sea and their tombs were the boats

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[11]Commander in Chief, U.S. Atlantic Fleet, Vol. 1, 1946. Guide No. 138, pp. 766-67. Navy Library, Naval Historical Center, Washington, D.C.

[12]Taylor, Fire, 233.

[13]Peter Cremer, U-boat Commander: A Periscope View of the Battle of the Atlantic trans. by Lawrence Wilson (Annapolis: Naval Institute Press, 1984), xi.

on which they served. There would be no funeral processions and no gun salutes. The crews rest forever in their iron coffins on the bed of the sea. There they joined the many, many victims of their attacks.[14]

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[14]Herbert A. Werner. Iron Coffins (New York: Bantam Books, 1978).

APPENDIX I

REPORT OF THE MINE SWEEPING OPERATIONS, 16 JUNE 1942
Source: Virginia Beach Lifesaving Museum

CONFIDENTIAL

FIFTH NAVAL DISTRICT
INSHORE PATROL
SECTION BASE
LITTLE CREEK, VIRGINIA

9 July 1942

From: Commander Defense Area Group.
To: Commander Eastern Sea Frontier.

Via: Commander Inshore Patrol

Subject: Report of Mine Sweeping Operations, 16 June 1942

References: (a)CIP conf. memo. SS-1(1S)/NN4-5ND over(LPT: BW) to Commanding Officer, Section Base, Little Creek, Virginia, dated 2 July 1942.

Enclosure: (A) Photostats of overlay of Chart #1222.

1. In reference (a) Commander Inshore Patrol directed the Commanding Officer, Section Base, Little Creek, Virginia to submit a report of mine sweeping operations subsequent to and by reason of, enemy mine discovered on 15 June 1942.

2. At approximately 1900, 15 June 1942, Commander Inshore Patrol notified Commanding Officer, Section Base, Little Creek, that ships had been reported sunk in the vicinity of Buoy 2CB (Chesapeake Bay Entrance) and directed that maximum mine sweeping operations be conducted at daylight 16 June 1942. Commander Inshore Patrol further informed Commanding Officer, Section Base, that sweepers from the Naval Mine Warfare School, Yorktown, Virginia, and the Service Squadron, Atlantic Fleet, would receive orders to report immediately to Section Base, Little Creek.

3. The following sweepers of the Local Defense Forces were available at the time at Section Base, Little Creek, Virginia: U.S.S. YMS-55, U.S.S. YMS-57, U.S. SECURITY and U.S. AGGRESSOR. Lieutenant Hartwell Pond, USNR, Commanding Officer, U.S.S. YMS-55 was Senior Officer Present Afloat.

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Subject: Report of Mine Sweeping Operations, 16 June 1942.

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4. The following vessels were available at Naval Mine Warfare School, Yorktown, and received orders to report to the Senior Officer Present Afloat upon arrival at Section Base, Little Creek: U.S.S. YMS-21, U.S.S. BULLFINCH, U.S.S. CARDINAL, U.S.S. HUMMINGBIRD, U.S.S. MOCKINGBIRD and U.S.S. YMS-54. These vessels arrived at Section Base, Little Creek, at 1000, 16 June 1942.

5. The following vessels of the Service Squadron, Atlantic Fleet, also received orders to report to Little Creek and arrived during forenoon 16 June 1942: U.S.S. FLICKER, U.S.S. BLUEBIRD and U.S.S. LINNET.

6. Conference was held by Commanding Officer, Section Base, Little Creek, on the evening of 15 June 1942 and it was decided to conduct a sweep of the regular buoyed swept channel with the vessels of the Service Squadron, Atlantic Fleet, as soon as they had reported from point Affirm to point X-Ray Mike. It was also decided to make an "area" sweep in the vicinity of Buoy 2CB. This area sweep was divided into three sub-divisions, shown on enclosure "A" as areas A, B and C. It was determined to sweep area A with the Little Creek sweepers and to expand the sweeping operations to areas B and C as soon as sweepers from Yorktown reported to the Senior Officer Present Afloat on the scene.

7. At 0427, 16 June 1942, the YMS-55, YMS-57, SECURITY and AGGRESSOR got underway from Little Creek and at 0619 commenced sweeping at point Affirm See enclosure "A"). Ships began sweeping in pairs with magnetic gear with opposite polarity on each pulse. Sweep current was 2500 - 2700 amperes at 200 - 210 volts. Pulse period was 5 seconds on 25 seconds off. Speed of advance through water 9 knots. SECURITY and YMS-57 were using acoustic hammers and the YMS-55 towed parallel pipes abeam. AGGRESSOR was sweeping magnetic only.

8. Six runs, 8 miles long, each run calculated to cover a path 800 yards wide were made covering entire area Affirm to insure complete coverage and to actuate delayed action mines.

9. At 1315 on run #8 the first mine was exploded under the tail of the YMS-57 and at 1515 the second exploded under the tail of the SECURITY. On run #10 the third mine exploded under the tail of the YMS-55 at 1707. At 1811 on run

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Subject: Report of Mine Sweeping Operations, 16 June 1942.

#11 the fourth mine was exploded under the tail of the SECURITY. At 1820 on the same run the fifth and last mine was exploded between the tails of the SECURITY and YMS-57.

10. The positions of these explosions are shown on enclosure "A". The findings point to the conclusion that the mines were magnetic ground mines laid at an average depth of 50 feet. A sharp shock was felt on each sweeper followed by a muffled roar and a column of water and up to 100 feet high after the explosion reached the surface. No damage resulted to the sweepers or gear. A final run was made without further results.

11. At 1230, 16 June 1942, the YMS-21, BULLFINCH, CARDINAL, HUMMINGBIRD and MOCKINGBIRD reported to Senior Officer Present Afloat on scene. The YMS-54 reported to Little Creek but because of faulty degaussing was unable to take part in the operation. The sweepers were instructed by visual signal to sweep in area Baker for magnetic and acoustic mines. The instructions were evidently misunderstood because the YMS-21 and BULLFINCH streamed "O" type gear and at 1800 the YMS-21 reported her sweep wire afoul of a submerged object which she believed to be a mine. She was instructed to beach the object for examination by the District Mine Disposal Unit, which was done. It proved to be an old fashioned anchor. The CARDINAL, HUMMINGBIRD and MOCKINGBIRD conducted two runs with magnetic gear in area Baker. One run was made by the group in area Cast with no results.

12. Gear was recovered at 1915 and vessels secured at Little Creek at 2100. the CARDINAL reported upon arrival that the PC-524 ran over her tail and damaged it, necessitating amputation and splicing at Little Creek.

13. Attention is invited to the fact that no vessels were sunk and no mines were exploded in the buoyed swept channel.

14. Vessels of the Service Squadron, Atlantic Fleet, completed the sweeping of the regular channel from point Affirm to point X-Ray Mike and returned to Little Creek at 2300.

15. The Yorktown group were ordered to return to Yorktown on 22 June 1942.

APPENDIX II

THE INQUIRY INTO SINKING OF HMS KINGSTON CEYLONITE
Source: Virginia Beach Lifesaving Museum

Finding of Facts

1. H.M.S. KINGSTON CEYLONITE was proceeding as escort to a tow on 15 June 1942 off Virginia Beach.

2. While proceeding from Moorehead City on a northerly course, and while approaching Buoy 2CB, at about 2018 Eastern War Time, an explosion occurred in the forward portion of the ship.

3. The ship foundered in about three minutes.

4. The commanding officer, one other officer, and numerous ratings were lost, as follows:

Leiper, T.O.F	Skipper, RNR.
Smith, W.M.	Skipper, Lt. RNR.
Craig, Robert	Ord. Sig.
Gibbs, Cyril	Sto. 1
Grimmer, Charles R. J.	Ldg. Sea H.S/D
Hitcham, Albert	Sto. 1
Hitching, Charles H. E.	Sea. S/D
Lamplough, James	A.A. 3
MacKinnon, Norman	A.A. 3
May, Kendall J. H.	S.V.G.L.
Munden, Fred	Ord. Sea.
Palmer, Albert E.	Ord. Sea.
Pegg, William	A.B.
Stubbs, Joseph D.	Ord. Sea.
Turner, Harold G.	A.A. 3
Welby, Arthur	Ord. Sig.
Wharton, Adam A.	A.B. Ord. Sea.
Farrall, John E.	Sea ex NORTHERN DAWN
Wray, Albert W.	L/Sea " "
Williams, Charles E.	Sea " "

5. The survivors were rescued with despatch and had no complaint to register against any officer or member of the crew of the H.M.S. KINGSTON CEYLONITE or those engaged in the rescue.

6. No positive evidence of the presence of submarines was developed in this area by patrol vessels or Naval blimp, which thoroughly searched the area prior to and following the explosion.

7. Sweeping operations on the following day disclosed the presence of at least five mines not laid in the swept channel but in an area to south and west of 2CB in area A of Exhibit 4, which mines were not laid by United States forces and the characteristics of which cannot be determined. There had been no indication of the presence of mines prior to 15 June 1942.

8. The H.M.S. KINGSTON CEYLONITE's degaussing equipment was not in operation due to inability of ship's generator to carry the load of said equipment in addition to its radio and antisubmarine detector.

9. The explosion occurred at a point between three and four miles southwest of Buoy 2CB, which marked the entrance of the swept channel to the northwest.

10. No written routing orders had been given to the commanding officer of the H.M.S. KINGSTON CEYLONITE.

OPINION

The court is of the opinion that H.M.S. KINGSTON CEYLOITE was standing on a course which the commanding officer of the ship was fully justified in believing to be safe. In view of the fact that H.M.S. KINGSTON CEYLONITE was escorting a slow-moving tow, and the commanding officer's lack of information of the presence of enemy mines, the shorter course appeared to be more reasonable than a course into the channel at Point X-ray Mike where waters were deeper and submarines would have had greater opportunity to drive home an attack.

Furthermore, the court is of the opinion that no offense has been committed, nor can serious blame be laid against any of the personnel of the H.M.S. KINGSTON CEYLONITE and that the loss of H.M.S. KINGSTON CEYLONITE was an unavoidable casualty of war.

RECOMMENDATION

No further proceedings to be had.

Frank Lyon,
Rear Admiral, U.S. Navy, Retired, President.

William S. Whitted,
Commander, U.S. Navy, Retired, Member.

John T. Bowers,
Commander, U.S. Navy, Retired, Member.

APPENDIX III

CREW OF H.M.S. KINGSTON CEYLONITE
Source: Virginia Beach Lifesaving Museum

Officers

Leiper, T.O.F.		Skipper, RNR.
Read, R.	3433, W.S.	Skipper, RNR.
Smith, W. M.	2755, W.S.	Skipper, Lt.RNR.

Crew

Adams, Leonard	N.K.	Sto. 1.
Bateson, Charles B.	LT/JX218496	2nd Hand
Bennett, Alan L.	LT/JX222327	Ord. Sea.
Butt, Wallace	LT/JX280396	Ord. Sea.
Craig, Robert	JX205862	Ord. Sea.
Gibbs, Cyril	LT/KX103711	Sto. 1
Grimmer, Charles R.J.	LT/JX184424	Ldg. Sea. H.S/D
Hitcham, Albert	LT/KX100957	Sto. 1
Hitching, Charles H.E.	LT/JX231744	Sea. S/D
John, David	LT/JX103897	2nd Eng.
Kay, Joseph R.	LT/JX205647	Ldg. Cook
Lamplough, James	LT/JX197250	A.A. 3
MacKinnon, Norman	LT/JX205517A	A.A. 3
May, Kendall, J.H.	LT/JX203606	S.V.G.L.
Munden, Fred	LT/JX280394	Ord. Sea.
Nunn, Percy R.	LT/JX163929	Ord. Sea.
Palmer, Albert E.	LT/JX280743	Ord. Sea.
Payne, John H.	P/JX272948	Ord. Tel.
Pegg, William	LT/JX185669	A.B.
Potter, Christie	X 105065	3rd Eng.
Price, Thomas T.	O/JX186499	Ord. Tel.
Rogers, Alfred W.	LT/KX115095	Sto. 1
Shields, Samuel A.	LT/JX265118	S/D Sea.
Stubbs, Joseph D.	LT/JX277627	Ord. Sea.
Turner, Harold G.	LT/JX206526	A.A. 3
Welby, Arthur	D/JX269540	Ord. Sea.
Wharton, Adam A.	LT/JX225078	A.B. Ord. Sig.
Wilson, Jacob	KX97918	Ch. Eng.
Farrall, John E.	JX 240547	Sea. ex NORTHERN DAWN
Wray, Albert W.	LT/JX174578	L/Sea. " "
Williams, Charles E.	LT/JX205540	Sea. " "
Deayton, Herbert	D/JX213865	Ord/Sig " "

CREW OF KINGSTON CEYLONITE KILLED IN ACTION

Officers

Read, R.	3433 W.S.	Skipper R.N.R.

Crew:

Adams, Leonard K.N.	Sto.	
Bateson, Charles B.	2nd Hand	LT/JX 218496
Bennett, Alan L.	O Sea.	LT/JX 222327
Butt, Wallace	O Sea.	LT/JX 280396
John, David	2nd Eng.	LT/JX 103897
Kay, Joseph R.	Ldg. Cook	LT/JX 205647
Nunn, Percy R.	O.S.	LT/JX 163929
Payne, John H.	O. Tel.	P/JX 272948
Potter, Christie	3rd Eng.	X 105065
Price, Thomas T.	O. Tel.	O/JX 186499
Shields, Samuel A.	Sea. S/D	LT/JX 265118
Wilson, Jacob	Ch. Eng.	KX 97918
Deayton, H.	O. Sig.	

Rogers, Alfred W.	Sto. 1	LT/KX 115095

was at hospital at Moorehead City

A true copy. Attest:

Robert S. Berger,
Ensign, U.S. Naval Reserve,
Judge Advocate.

APPENDIX IV

CONFLICTING REPORTS ON THE KINGSTON CEYLONITE

Source: Virginia Beach Lifesaving Museum

KINGSTON CEYLONITE

Casualties

SOURCE:	ABOARD	KILLED	RESCUED
Boardwalk Plaque at Virginia Beach	32	17	15
Upper Gallery Board at VA. Lifesaving	20	17	
British Board of Admiralty Inquiry,1942		20	
Frank Shield Manuscript	30	30	
USN Board of Inquiry, 1942 (troop list)	34	20	14
Testimony by Skipper Read, RNR	33		
Army Harbor Defense		all	
Summer of '42 Exhibit Map(Chewning)		20	15
K. Fisher from USCG Annual Reports	32	18	
Weinert, Defender of the Chesapeake		all	
Report, 5th Naval District, Intel Ofc	32	17	15

Blank spaces indicate no information available by that source

APPENDIX V
SUMMARY OF MERCHANT SHIP CASUALTIES
FIFTH NAVAL DISTRICT

FLAG	TORPEDOED Sunk	TORPEDOED Damaged	TORPEDOED & SHELLED Sunk	TORPEDOED & SHELLED Damaged	ENEMY MINES Sunk	ENEMY MINES Damaged	SHIPS	LIVES REPORTED LOST	TONNAGE OF SHIPS Sunk	TONNAGE OF SHIPS Damaged
American	22	6	3	1	2	1	44	354	222,007	70,106
British	11	1	0	0			12	297	90,462	6,985
Panamanian	5	1	0	0			6	74	22,619	11,148
Norwegian	3	1	0	0			4	38	17,394	6,825
Brazilian	2	0	1	0			3	2	19,352	0
Yugoslavian	2	0	0	0			2	5	8,331	0
Latvian	1	0	0	0			1	?	3,779	0
Swedish	1	0	0	0			1	5	15,355	0
Russian	1	0	0	0			1	0	5,284	0
Honduran	1	0	0	0			1	44	1,698	0
Greek	1	0	0	0			1	0	5,106	0
Belgian	1	0	0	0			1	1	6,959	0
Nicaraguan	1	0	0	0			1	?	2,063	0
Cuban	1	0	0	0			1	25	5,441	0
SUNK	53	0	4	0	2	0	66		425,850	0
DAMAGED	0	9	0	1	0	1	13		0	0
TOTALS	53	9	4	1	2	1	79	843	520,914	

Source: Harry Nash, Portsmouth Star

APPENDIX VI
SHIPS SUNK IN THE FIFTH NAVAL DISTRICT

DATE	POSITION	SHIP NAME NATIONALITY	TYPE TONNAGE	ATTACK RESULTS	U-BOAT CAPTAIN
1-18-42	35-57 N	SS ALLAN JACKSON	Tanker	Torpedo	U-66
	74-20 W	American	6635	Sunk	Zapp
1-19-42	35-00 N	SS LADY HAWKINS	Car/Pas	Torpedo	U-66
	72-30 W	British	7988	Sunk	Zapp
1-19-42	35-42 N	SS CITY OF ATLANTA	Cargo	Torpedo/Gun	U-123
	75-21 W	American	5269	Sunk	Hardegen
1-19-42	35-40 N	SS MALAY	Tanker	Torpedo/Gun	U-123
	75-20 W	American	8207	Damaged	Hardegen
1-19-42	35-25 N	SS CILTVAIRA	Cargo	Torpedo	U-123
	75-23 W	Latin	3779	Sunk	Hardegen
1-23-42	35-06 N	MV EMPIRE GEM	Tanker	Torpedo	U-66
	74-58 W	British	8139	Sunk	Zapp
1-23-42	34-50 N	SS VENORE	Ore/Car	Torpedo	U-66
	75-20 W	American	8016	Sunk	Zapp
1-27-42	38-05 N	SS FRANCIS E. POWELL	Tanker	Torpedo	U-130
	74-53 W	American	7096	Sunk	Kals

Source: Fielding Tyler,
Virginia Beach Lifesaving Museum

1-30-42	37-10 N 73-58 W	SS ROCHESTER American	Tanker 6836	Torpedo/Gun Sunk	U-106 Rasch
1-31-42	37-33 N	SS TACOMA STAR	Cargo	Torpedo	U-109
	69-21 W	British	7924	Sunk	Bleichrodt
2-1-42	36-36 N	MV AMERIKALAND	Ore/Car	Torpedo	U-106
	74-10 W	Swedish	15355	Sunk	Rasch
2-8-42	37-05 N	SS OCEAN VENTURE	Cargo	Torpedo	U-108
	74-46 W	British	7174	Sunk	Scholtz
2-11-42	35-00 N	SS BLINK	Cargo	Torpedo	U-108
	72-27 W	Norwegian	2701	Sunk	Scholtz
2-15-42	36-31 N	SS BUARQUE	Cargo	Torpedo	U-432
	75-30 W	Brazilian	5152	Sunk	Schultze
2-16-42	36-56 N	SS E. H. BLUM	Tanker	M	unknown
	75-56 W	American	11615	Damaged	
2-18-42	37-30 N	SS OLINDA	Cargo	Torpedo	U-432
	75-00 W	Brazilian	6400	Sunk	Schultze
2-27-42	35-33 N	SS MARORE	Ore/Car	Torpedo/Gun	U-432
	74-58 W	American	8215	Sunk	Schultze

3-7-42	35-15 N 73-55 W	SS ARABUTAN Brazilian	Cargo 7874	Torpedo Sunk	U-155 Piening
3-11-42	34-40 N	SS CARIBSEA	Cargo	Torpedo	U-158
	76-10 W	American	2609	Sunk	Rostin
3-13-42	37-00 N	SS TREPCA	Ore/Car	Torpedo	U-332
	73-25 W	Yugoslavian	5042	Sunk	Liebe
3-14-42	34-22 N	SS OLEAN	Tanker	Torpedo	U-158
	76-29 W	American	7118	Damaged	Rostin
3-15-42	34-37 N	SS ARIO	Tanker	Torpedo	U-158
	76-20 W	American	6952	Sunk	Rostin
3-16-42	35-43 N	MS AUSTRALIA	Tanker	Torpedo	U-332
	75-22 W	American	11628	Sunk	Liebe
3-16-42	37-03 N	MV SAN DEMETRIO	Tanker	Torpedo	U-404
	73-50 W	British	8703	Sunk	V. Bulow
3-16-42	35-43 N	SS CEIBA	Cargo	Torpedo	U-124
	73-49 W	Hondurian	1698	Sunk	Mohr
3-17-42	35-05 N	SS ACME	Tanker	Torpedo	U-124
	75-20 W	American	6878	Damaged	Mohr

3-17-42	35-05 N 75-25 W	SS KASSANDRA LOULOUDIS Greek	Cargo 5106	Torpedo Sunk	U-124 Mohr
3-18-42	34-50 N	SS E.M. CLARK	Tanker	Torpedo	U-124
	75-35 W	American	9647	Sunk	Mohr
3-18-42	34-25 N	SS W.E. HUTTON	Tanker	Torpedo	U-124
	76-50 W	American	7076	Sunk	Mohr
3-18-42	34-17 N	SS PAPOOSE	Tanker	Torpedo	U-124
	76-39 W	American	5939	Sunk	Mohr
3-19-42	35-05 N	SS LIBERATOR	Cargo	Torpedo	U-332
	75-30 W	American	7720	Sunk	Liebe
3-19-42	34-27 N	SS GULF OF MEXICO	Tanker	Gun	Unknown
	76-31 W	American	7807	Escaped	
3-20-42	34-21 N	MV MERCURY SUN	Tanker	Gun	Unknown
	76-32 W	American	8893	Escaped	
3-20-42	36-22 N	SS OAKMAR	Cargo	Torpedo/Gun	U-71
	68-50 W	American	5766	Sunk	Flachsenberg
3-26-42	34-55 N	SS DIXIE ARROW	Tanker	Torpedo	U-71
	75-00 W	American	8046	Sunk	Flachsenberg

3-26-42	36-36 N 74-45 W	SS EQUIPOISE Panamanian	Cargo 6210	Torpedo Sunk	U-160 Lassen
3-29-42	35-16 N	MV CITY OF NEW YORK	Car/Pas	Torpedo	U-160
	74-25 W	American	8272	Sunk	Lassen
3-31-42	37-34 N	ALLEGHENY	Barge	Gun	U-754
	75-25 W	American	914	Sunk	Oestermann
3-31-42	37-34 N	ONTARIO	Barge	Gun	U-754
	75-25 W	American	480	Damaged	Oestermann
3-31-42	37-34 N	BARNEGAT	Barge	Gun	U-754
	75-25 W	American	914	Sunk	Oestermann
3-31-42	37-34 N	SS MENOMINEE	Tug	Gun	U-754
	75-25 W	American	441	Sunk	Oestermann
4-1-42	36-50 N	SS TIGER	Tanker	Torpedo	U-754
	74-18 W	American	5992	Sunk	Oestermann
4-1-42	35-16 N	SS RIO BLANCO	Cargo	Torpedo	U-160
	74-18 W	British	4086	Sunk	Lassen
4-2-42	34-11 N	SS LIEBRE	Tanker	Torpedo/Gun	U-123
	76-08 W	American	7057	Damaged	Hardegen

4-2-42	35-54 N 75-26 W	MV ESSO AUGUSTA American	Tanker 11237	Escaped	unknown
4-2-42	37-57 N	SS DAVID H ATWATER	Coalier	Gun	U-552
	75-10 W	American	2438	Escaped	Topp
4-3-42	36-25 N	SS OTHO	Car/Pas	Torpedo	U-754
	75-22 W	American	4839	Sunk	Oestermann
4-4-42	36-08 N	SS BYRON T BENSON	Tanker	Torpedo	U-552
	75-32 W	American	7953	Sunk	Topp
4-6-42	34-25 N	MV BIDWELL	Tanker	Torpedo	U-160
	75-57 W	American	6837	Damaged	Lassen
4-6-42	35-07 N	MV BRITISH SPLENDOUR	Tanker	Torpedo	U-552
	75-19 W	British	7138	Sunk	Topp
4-7-42	35-08 N	SS LANCING	Tanker	Torpedo	U-552
	75-22 W	Norwegian	7866	Sunk	Topp
4-9-42	34-28 N	SS MALCHACE	Cargo	Torpedo	U-160
	75-56 W	American	3516	Sunk	Lassen
4-9-42	34-27 N	SS ATLAS	Tanker	Torpedo	U-552
	76-16 W	American	7137	Sunk	Topp

4-9-92	35-35 N 75-06 W	MV SAN DELFINO British	Tanker 8072	Torpedo Sunk	U-203 Mutzelburg
4-10-42	34-25 N	SS TAMAULIPAS	Tanker	Torpedo	U-552
	76-00 W	American	6943	Sunk	Topp
4-11-42	34-25 N	SS HARRY F. SINCLAIR, JR	Tanker	Torpedo	U-203
	76-30 W	American	6151	Damaged	Mutzelburg
4-11-42	34-23 N	SS ULYSSES	Car/Pas	Torpedo	U-160
	75-35 W	British	14647	Sunk	Lassen
4-14-42	35-08 N	SS EMPIRE THRUSH	Cargo	Torpedo	U-203
	75-18 W	British	6160	Sunk	Mutzelburg
4-16-42	35-35 N	SS DESERT LIGHT	Cargo	Torpedo	U-572
	72-48 W	Panamanian	2368	Sunk	Hirsacker
4-16-42	35-34 N	SS ALCOA GUIDE	Cargo	Gun	U-123
	70-08 W	American	4834	Sunk	Hardegen
4-18-42	35-32 N	SS AXTELL J. BYLES	Tanker	Torpedo	U-136
	75-19 W	American	8955	Damaged	Zimmermann
4-20-42	36-25 N	SS CHENANGO	Cargo	Torpedo	U-84
	74-55 W	Panamanian	3014	Sunk	Uphoff

4-24-42	37-00 N 69-15 W	SS EMPIRE DRUM British	Cargo 7244	Torpedo Sunk	U-136 Zimmermann
4-29-42	34-19 N 76-31 W	SS ASCHABAD Russian	Cargo 5284	Torpedo Sunk	U-402 V. Forstner
5-12-42	Cape Lookout	HMS BEDFORDSHIRE British	Armed Trawler 913	Torpedo Sunk	U-588 Krech
5-18-42	34-45 N 75-38 W	SS C.J. BARKDULL Panamanian	Tanker 6733	Torpedo Escaped	unknown
6-1-42	36-10 N 68-20 W	SS WEST NOTUS American	Cargo 5492	Gun/Scuttling Charge Sunk	U-404 V. Balow
6-11-42	34-52 N 75-45 W	SS F.W. ABRAMS American	Tanker 9310	Mine Sunk	U.S. Mines
6-15-42	36-52 N 75-51 W	SS ROBERT C. TUTTLE American	Tanker 11615	Mine Damaged	U-701 Degen
6-15-42	36-52 N 75-51 W	MV ESSO AUGUSTA American	Tanker 11237	Mine Damaged	U-701 Degen
6-15-42	36-52 N 75-51 W	HMS KINGSTON CEYLONITE British	Armed Trawler 448	Mine Sunk	U-701 Degen

6-17-42	36-52 N 75-52 W	SS SANTORE American	Ore/Car 7117	Mine Sunk	U-701 Degen
6-17-42	36-52 N	BAINBRIDGE	Destroyer	Mine	U-701
	75-51 W	American	1190	Damaged	Degen
6-19-42	10 Miles From	USS YP-389	Armed Trawler	Gun	U-701
	Diamond Head	American	165	Sunk	Degen
6-24-42	34-30 N	SS LJUBICA MATKOVIC	Cargo	Torpedo	U-404
	75-40 W	Yugoslavian	3289	Sunk	V. Bulow
6-24-42	34-30 N	SS NORDAL	Cargo	Torpedo	U-404
	75-40 W	Panamanian	3845	Sunk	V. Bulow
6-24-42	34-30 N	SS MANUELA	Cargo	Torpedo	U-404
	75-40 W	American	4772	Sunk	V. Bulow
6-25-42	34-59 N	MV TAMESIS	Car/Pas	Torpedo	U-701
	75-41 W	Norwegian	7256	Damaged	Degen
6-27-42	38-03 N	MV MOLDANGER	Cargo	Torpedo	U-404
	70-52 W	Norwegian	6827	Sunk	V. Bulow
6-27-42	34-45 N	MV BRITISH FREEDOM	Tanker	Torpedo	U-701
	75-22 W	British	6985	Damaged	Degen

6-28-42	35-07 N 75-07 W	SS WM. ROCKEFELLER American	Tanker 14054	Torpedo Sunk	U-701 Degen
7-1-42	35-10 N	SS CITY OF BIRMINGHAM	Cargo	Torpedo	U-202
	70-53 W	American	5861	Sunk	Linder
7-10-42	33-44 N	MV J.A. MOWINCKEL	Tanker	Torpedo/Mine	U-576
	75-19 W	Panamanian	11148	Damaged	Heinicke
7-15-42	34-53 N	SS CHILORE	Cargo	Torpedo/Mine	U-576
	75-22 W	American	8310	Sunk	Heinicke
7-15-42	34-46 N	MV BLUEFIELDS	Cargo	Torpedo	U-576
	75-22 W	Nicaraguan	2063	Sunk	Heinicke

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